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A Weekly Journal of Pharmacy and the Drug-trade.

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COLONIAL TRADE.

NEXT week's issue of THE CHEMIST AND DRUGGIST will be specially circulated to all buyers of druggists' goods, and allied manufactures, in every colony of the British Empire, India, China, and Japan. It is an excellent opportunity for advertisers to address a magnificent business circle. The issue will go to all colonial chemists, besides thousands elsewhere, and the largest circle of home buyers. The Publisher cannot guarantee insertion of any advertisements received after Tuesday, April 21. Coloured Supplement advertisements will be received up to Thursday, as usual.

Summary.

THREE COLUMNS of useful formulæ will be found on p. 626.

A TOILET EXHIBITION is being held in the Brighton Aquarium (p. 608).

THREE Scotch Universities object to the B.Sc. Pharm. scheme (p. 628).

THE names of the Minor candidates who passed in Edinburgh this month are given on p. 620.

THE question of Irish drugs for the Irish poor has been heard in the House of Commons (p. 619).

Two Bills to suppress substitution have been introduced into the New York Legislature (p. 622).

TWO UNQUALIFIED DENTISTS have been fined under the Dentists Act for the illegal use of titles (p. 618).

WE conclude our selection from DIARY postcards received from home subscribers, and award four prizes (p. 627).

PATENT-MEDICINE LEGISLATION, covering the sale of hypnotics especially, has been started in Pennsylvania (p. 615).

EIGHTEEN CANDIDATES passed the Major examination in London this month, and four failed in Edinburgh (p. 623).

WARWICKSHIRE MAGISTRATES believe they have no discretion as regards "off" wine licences, and have so decided (p. 609).

MOTORING may be utilized by chemists as a side-line in the manner suggested by Mr. Fred Reynolds and our staff poet (p. 620).

THE FIRST CHEMICAL LABORATORY for students was not that of the Pharmaceutical Society. An advertisement of 1839 shows this (p. 624).

KOCH'S THEORY about bovine tuberculosis not being communicable to man has been disproved by two Aberdeen investigators (p. 611).

DR. T. A. HENRY, of the Imperial Institute laboratories, controverts certain statements by Mr. D. B. Dott regarding Indian podophyllin (p. 630).

SIX PHARMACY and CHEMISTRY PAPERS, given at the London MUNI examination, and an account of the examination in Edinburgh, are printed on p. 640.

MR. WALTER FARNWORTH, the pharmaceutical Mayor of Blackburn, was thrown from his carriage on Thursday morning, and died in the afternoon (p. 633).

FRANCO-BRITISH TRADE during 1902 is reviewed by the British Chamber of Commerce in Paris. The United Kingdom is France's best customer (p. 623).

WE reprint those portions of the *Daily Mail* articles on substitution which apply to chemists and druggists (p. 639), and show how inaccurate the writer is (p. 623).

"XRAYSER" waxes sarcastic in regard to synthetic scents, has something to say about agreements between chemists and grocers, about radium, and the possessive-case difficulty (p. 621).

AN APPEAL against the recent decision under the Dentists Act, whereby the promoter and manager of a dental company was fined, has been arranged, and funds are wanted to prosecute it (p. 633).

THE AGENTS for Winter's citronella oil write in regard to Messrs. Bennett and Parry's recent paper on the subject, and suggest that Russian kerosene, and not resin-spirit, was the adulterant (p. 630).

SUBJECTS IN "SCIENTIFIC PROGRESS" this week are citrarin, a polymerised chloral, adulterated turpentine, nitrogen compounds of saccharin, monarda oils, cod-liver oil, coca constituents, and the detection of raw milk (p. 620).

THE QUESTIONS set at the Irish Pharmaceutical Licence examination this month are printed on p. 619, where also are given the names of those who passed the examination and of those who passed the Preliminary examination.

A CORRESPONDENT writes in a trenchant manner in regard to cutting and substitution. He says the P.A.T.A. will never settle the matter, and suggests an independent conference to condemn substitution and secure 20 per cent. profit (p. 623).

MR. GEO. S. WOOLLEY complains of the apathy of Manchester chemists as regards pharmaceutical affairs, the local Association not being attended as it should be. Mr. Woolley's colleagues have presented him with an illuminated address (p. 614).

THE MARKETS have only been partially re-opened since the holidays, and no changes of importance have occurred. Cartagena ipeec and shellac are practically the only articles that have shown any life (p. 636).

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

Some cash chemists are buying all the cod-liver oil they can from their neighbours.

The *Sussex Daily News* of April 8 devoted two columns to a biographical sketch of the late Alderman A. H. Cox.

Mr. James Lyall, chemist and druggist, 433 Green Lanes Harringay, N., obtained a wine-licence at the Tottenham Transfer Court on April 9.

The Northern Chamber of Commerce at a meeting held in Newcastle-on-Tyne last week resolved to support Mr. Dobbs's move in regard to the Poisons Committee's report.

The Executive Committee of the Carnegie Institution, Washington, has made a grant of 5,000 dollars and travelling expenses to Professor Arthur Gaunee to enable him to prepare a report on the physiology of nutrition.

The salary of the out-relief dispenser to the Ipswich Guardians (Mr. Wm. Cornell) has been increased from 40/- to 50/- a year. It was stated that Mr. Cornell last year made up between 4,000 and 5,000 prescriptions.

Mr. Clarence James, chemist and druggist, will supply drugs to the Cheltenham Board of Guardians for the ensuing twelve months, at 23 per cent. off Messrs. Manners & Hopkinson's price-list, and he will also supply the sundries.

Sevenoaks Board of Guardians are so alarmed at their workhouse drug-bill, which amounted to 19/- for the past quarter, that they have decided to purchase drugs in future from wholesale houses instead of from the local chemists.

At Yeovil, on April 8, John Watt, chemist and druggist, Middle Street, Yeovil, was summoned by his wife for persistent cruelty, and she asked for a separation and a maintenance order. After hearing evidence the Bench dismissed the case.

The Chemical and Produce Sections of the Manchester Chamber of Commerce are considering Mr. Dobbs's resolutions respecting agricultural and horticultural poisons. Perhaps local pharmacists will give the committee sound advice on the subject.

A Plymouth bookmaker named Hingston has been remanded at Exeter on a charge of breaking and entering 5 Silver Terrace, Exeter, the house of Mr. W. J. Bray, the West of England representative of Messrs. A. de St. Dalmas & Co., of Leicester, and stealing jewellery, &c., to the value of 100/-.

During the past year the Birkenhead Board of Guardians paid 1,732/- in vaccination-fees, one doctor alone receiving 1,000/. The accounts were grudgingly passed at a recent meeting of the Board, as was also a recommendation that the Local Government Board should be requested to reduce the scale of fees payable.

At the Wimborne County Court, on April 9, Mr. F. S. Seymour, chemist and druggist, Wimborne, sued Mr. and Mrs. J. T. Randall, of Dulwich, and formerly of Wimborne, to recover 27l. 3s. 1d., balance of an account. A verdict for the plaintiff was given as against Mr. Randall for the amount claimed, at 10s. a month as offered.

At Hull, on April 7, William Joules Dick, a stevedore, was charged by the Commissioners of Customs with being concerned in the unshipping of 40 lbs. of saccharin on which duty had not been paid. It was stated that the maximum penalty in the case is 300/-, and it is for that sum the Commissioners are suing. The case was adjourned.

At the Spilsby Petty Sessions on April 11, George Kyme, waggoner, Wainfleet St. Mary, was fined 5/- and 3/- costs, or in default two months' hard labour, for administering poisonous drugs to his master's horses. Mr. G. B. Dickinson, F.R.C.V., of Boston, who was called in, found a mare showing signs of irritant poisoning. The mare died, and the *post-mortem* symptoms pointed to sulphuric-acid poisoning. Evidence was called to show that accused obtained a

bottle of oil of vitriol from the chemist's at Wainfleet. Prisoner pleaded guilty, but maintained that he only used green copperas.

At the instance of the Pharmaceutical Society a committal order was obtained at the Liverpool County Court, on April 6, against John Eames, lately an unqualified assistant with Mr. S. Stephenson, pharmaceutical chemist, 270 Kensington, Liverpool. Eames was fined 21/- 16s. at the court a few months ago (see *C. & D.*, January 17, page 77) for selling poison, and promised to go home (as he was then out of a situation) and get his father or relatives to give him the money. It was now stated that Eames had sent a letter offering to pay 6s. a month, and the Judge made an order, on the understanding that it would not be acted on as long as monthly payments were made.

Contracts.

Messrs. W. Bites & Co. (Limited) will supply disinfectants to Southampton Hospital.

Mr. J. W. Lasham, pharmaceutical chemist, Romford, is to supply disinfectants to the Romford Urban District Council.

Messrs. W. & H. B. Williams, of Bridge Street, will supply drugs to the Hereford Corporation for the ensuing half-year.

Messrs. Pavcy & Co., Ramsgate, have been appointed chemists to the Isle of Thanet Joint Hospital for the ensuing six months.

Mr. F. J. Keene, chemist and druggist, has secured the contract for the year's supply of disinfecting-powder to the Oldbury Urban District Council.

The Public Health Committee of the Cambridge Corporation have appointed Mr. E. W. Moss, chemist and druggist, to be chemist to the local Infectious Diseases Hospital.

Leeds Notes.

A Leeds chemist brings forward the old grievance of the absence of combination among his *confrères* in that city. He bitterly laments the fact that in Leeds they are not as chemists in Bradford and other large centres are. He admits that they possess an association, but questions its utility from a business-combination standpoint. He has hopes, however, of chemists in the city. An enterprising portion of them, he hears, have banded themselves together with a view of purchasing "patents" in order to fight the stores. This movement appears to confirm the representation that Leeds chemists are severely feeling the competition of the stores.

The inability of the doctor to specify the particular herb which poisoned the man Joseph Sanderson at Bramley, Leeds, last week, has aroused much attention in the city. The herb was apparently included in a quantity of wormwood which the man's wife purchased for headache and stomachic ailments. The woman, at the time of the purchase, noticed that the stalks of the herb were usually long for wormwood, and also that the leaves were slightly different from what she had seen before. As she threw away all that remained of the stuff there is no actual corroboration of her statement. Whether anyone else bought wormwood from the same hawk it is impossible to say, but no further cases of illness resulting from herb-poisoning have come to light. Now that publicity has been given to the case the hawk may voluntarily come forward to assist in clearing up the mystery, and perhaps some expert reader of the *C. & D.* can throw some light on the problem.

A Toilet-exhibition

was opened on April 11 at the Brighton Aquarium, and seems to be attracting a number of visitors. Price's Patent Candle Company (Limited) have a capital exhibit, the Regina soap being the leading feature. Another new line is the Ro-ti-sha soap, which is attractively wrapped and beautifully perfumed. At the time of our visit an illustrated "jubilee memoir" was being distributed, which should do something towards increasing the popularity of the firm. Messrs. J. C. & J. Field (Limited) have a display of their goods, the Fleur de Lys series of soaps and perfumes being prominent. Mr. Wm. Teogood has a showcase filled with toilet-pots and glassware

near the entrance. Shaving-creams—white, pink, and violet—and shampoo-bowls are among the goods shown, and a German styptic wool (ferric chloride impregnated) will appeal to shavers. The "Silky Fibre" aseptic handkerchiefs of the Toilet Novelties Company, Bristol, are to be seen on another stall, along with the Platypus eucalyptus oil. The Tasmanian Eucalyptus Oil Company (Limited), who show the Platypus oil, are distributing samples of four kinds of pastilles in which the oil is combined with malt, glycerin, black currant, or honey. Messrs. H. P. Truefitt (Limited) have a display in a prominent position in the entrance-hall, where the band plays. The Esma series of toilet-preparations, which is made a feature of, comprises Bathesma (bath-powder), Esma perfume, Savon Esma, Poude à Toilette Esma, Sachet Esma, Esma bath-pad, and Esma felt, all characterised by the same very pleasant perfume. Messrs. Barton Brothers & Co. have a show of Brighton glycerin-cream and dentifricium (a liquid dentifrice), and are distributing free samples of the former—a white creamy rose-scented liquid. Messrs. Hardcastle & Co., who have so successfully developed the photographic business, are showing cameras, lenses, and papers. Dr. Grün's liquid lens, shown with specimens of work, is attracting much attention. The theatre scenes and midnight photographs are really wonderful. The Sussex Drug Company (Limited) have a general display of toilet-requisites, with a stack of Hall's tonic for indigestion at one corner. Another stall is devoted to Dolphin soap, and near by is a display of Armour's soaps, Erasmic soap, and Jergen's soap. The Empire bath-cabinets are also being shown, a wax lady being comfortably ensconced in one of the vapour-baths. Many visitors are interested in a collection of cartoons all relating to the toilet. The pictures are lent by Mr. Nash, of Kingston-on-Thames, and date from 1700. There is one quaint cartoon of a fop whose whiskers a valet has turned pea-green with a hair-dye, but most of the pictures relate to shaving incidents—many having political significances which no doubt appealed to our ancestors very strongly.

A New Smoke-room.

The members of the Western Chemists' Association made a trial of new quarters for their smoker on April 15. It took place in a cosy room at the Norfolk Square Hotel, London Street, Paddington, close by their old quarters. The biting blast evidently acted as a deterrent, however, for the gathering, over which the pawky President of the Association, Mr. J. W. Bowen, presided, was scarcely so numerous as usual. The programme submitted was of a character not general at smokers, the various contributions being lofty in tone and excellent in execution. The artists were Messrs. Frank Peskett (who gave pianoforte and vocal solos), Charles J. Murton and Henry Horscroft (who sang solos and duets), and Grenville A. Melverne, humourist, ventriloquist, and mime.

Birmingham Notes.

Mr. Bloomfield has taken a shop at Pershore Road. He has also another at Monument Road.

The Trades Exhibit at Bingley Hall has a slight smack of pharmacy in the stall presided over by Mr. Peake, who until recently was with Mr. Cattell, Sutton. He shows a toilet-requisite.

A King's Heath chemist's shop-window has a mechanical doll, fearfully and wonderfully attired, which blows soap-bubbles and helps to advertise Erasmic soap. It is a source of much attraction.

An important decision in regard to "off" wine-licences has been given by the Warwickshire Quarter Sessions through their Chairman, Mr. Dugdale, K.C., M.P. In effect it stated that Licensing Justices have not the power to withhold the licence, as they have only judicial and not administrative discretion. The appeal was allowed and the licence renewed, with costs against the Treasury of the city. A case was stated for a higher Court.

A Coroner Wrong about the Schedule.

At an inquest held at Hammersmith on April 9, on the body of a cab proprietor named Westaway, it was stated that the deceased got a cabman to buy him some phosphor paste, and soon after was seen eating the contents of the

jar with a pocket-knife. Mr. Harry Peasgood, chemist and druggist, Russell Gardens, who was told that the man had taken poison, at once went down and gave him an emetic of sulphate of zinc. The Coroner (Mr. Luxmoore Drew) said the chemist had acted very promptly in the matter, and had done all he could for the man. Charles Montague Fann said he was an unqualified assistant with Mr. J. Feltwell, chemist, 65 Blythe Road, W. He sold the phosphor paste. The Coroner pointed out to the witness that vermin-killers came under section 2 of the poisons schedule unless they contained a poison enumerated under Part 1 of the schedule, and asked how it was that the witness, being unqualified, had sold the poison. The witness said it was a proprietary article, and he frequently sold it when the proprietor was there.

The Coroner: But the proprietor was not there on this occasion?

The Witness: No, sir.

The Coroner, in summing up, said that the manner of selling the poison appeared to be irregular, but that was not a matter for them to deal with, and the usual verdict was returned.

Masonic.

W. Bro. John Taylor, chemist and druggist, Torquay, is Secretary of the Jordan Lodge of Freemasons and Mayor of Torquay. To mark the double event, the brethren of the Lodge on April 8 presented their Secretary with a gold jewel of office, as an addition to the many jewels attained by filling numerous other offices in the Craft. On the same occasion a gold bracelet was presented to the Mayoress and gold brooches to the Misses Taylor. W. Bro. Taylor was first initiated into the St. John's Lodge in 1885. In it he attained to the position of S.W. In 1887 he became a joining member of the Jordan Lodge, where he attained the position of Master after a service of three years. In 1891 he was appointed Secretary of the Lodge, a position which he still retains. During the last year of office of Lord Ebrington as Provincial Grand Master of Devon, W. Bro. Taylor was given a steward's collar. Lord Northcote succeeded Lord Ebrington as Provincial Grand Master of the county, and during his first year of office he gave W. Bro. Taylor the collar of Provincial Grand Registrar. In 1886 W. Bro. Taylor became a Royal Arch Mason, and in 1893 he occupied the chair of Z. He was subsequently in the chair of Z for two years in succession in the Totnes Chapter, and at present he held that position in the Jordan Chapter, 1402. He is also Past Provincial Scribe N., and has past grand rank in two other degrees, and is a 30th degree man, having passed the chair in all degrees taken by him. W. Bro. Taylor has been a munificent donor to the general and local Masonic charities, and it may be mentioned that he was on a former occasion a Charity Steward for Mark Masonry.

Novel Advertisements.

Mr. Cleasby Chorley, chemist, New Malden, Surrey, is an expert in window-dressing. To advertise his preparation, "Dr. Fleming's egg-emulsion," he has in his window an incubator with chickens running about; crocuses, daffodils, and other growing flowers forming a very pretty background.

Mr. F. Cutmore, chemist and druggist, St. Mary-Church, Torquay, is the proprietor of a "plant-food," which he advertises locally in a novel manner. Last week a smart carriage and pair paraded the streets of Torquay, the driver being in livery, and beside him a liveried bugler. Inside the carriage was a platform, upon which stood a huge azalea, the bills that were distributed stating that the azalea, which gained the first prize at the Torquay flower-show, was grown by Mr. Cutmore, and fed with his "plant-food." The equipage stopped outside various chemists' shops whilst the bugler played calls, and the proceedings attracted a large share of public attention.

Poisonous Medicines and Child Messengers.

At a meeting of the Dispensary Committee of the Cardiff Board of Guardians on April 9, a discussion took place as to the advisability of supplying children at the workhouse dispensary with medicine. Mr. W. B. Taylor, the dispenser, stated that during last month he had dispensed 3,409 prescriptions, and in two-thirds of the cases the medicine was handed to children under 14 years of age. In most cases the medicine contained poisons in dangerous quantities, and

if the contents of a bottle were taken by a child death would probably ensue. Recently he had refused to supply a little girl of 6 with a liniment of aconite and belladonna. Mr. J. J. Ames, chemist, protested against the present system as monstrous, and said that for his own protection he had hitherto refused to supply little children. The action of Mr. Taylor was endorsed by the committee, and a resolution was passed recommending the Board to discontinue the present system. At a meeting of the Board on April 11 Mr. F. J. Beavan (the ex-Mayor) called attention to the remarks made at the Dispensary Committee, and moved that the committee be asked to consider the matter and report whether anything could be done to check the practice of sending young children for medicines. The motion was seconded, but the Rev. Van de Heuvel hoped the Guardians would not act precipitately in the matter, as in the majority of cases poor people had no one but children to send for their medicine. Mr. J. R. Llewellyn pointed out that so far nothing had happened to justify the outcry made against the present system, and Mr. S. Mildon said that, as a father of ten children, his difficulty always had been not to keep them from medicine but to get them to take it. (Laughter.) The motion was carried.

Football.

Mr. F. Y. Horner, son of Mr. Edward Horner, of Horner & Sons, Mitre Square, E.C., has represented Herts during the past season in competition matches.

Mr. C. F. Welch, son of Mr. S. C. Welch, proprietor of Hopwood & Co., manufacturing chemists, Jewry Street, E.C., has this year increased his reputation as a footballer. He has this season represented both Middlesex and London regularly, and has secured caps and badges for both Associations. He has scored eleven goals in the same number of representative matches, and his club (Richmond Association) on April 4 secured the Eastbourne Charity Cup.

Poisonings.

Since our last issue ten fatalities have been reported from various parts of the country directly attributable to poisons. Eight of these are scheduled: laudanum two, carbolic acid three, oxalic acid, hydrocyanic acid, and cyanide of potassium. The unscheduled poisons are liquid ammonia and phosphor paste. A Hull insurance-agent and a Sheffield labourer took overdoses of laudanum. Carbolic acid seems the favourite poison for women, and this week it was taken by a nurse in a train at Basingstoke (who had been discharged from a private nursing-home at Southampton), by a girl at Heaton (who quarrelled with her sweetheart), and by a married woman at Darlington. A Lakenham shoemaker, who had been ailing for some time, took oxalic acid; a working jeweller at York took cyanide of potassium; and Dr. Arthur Buckell, of Chichester, who suffered from melancholia, ended his existence with an overdose of prussic acid. The phosphor-paste case is dealt with elsewhere. A two-year-old child at Holmesfield, died from drinking a quantity of liquid ammonia. A well-known Nottingham man named Hicking, shot his wife, took a dose of laudanum, and then shot himself. At an inquest on a man named Apted, who lived at Swanley, Kent, allegations were made of poisoning with phosphor paste. Dr. Crawford suspected poisoning, but a *post-mortem* examination revealed no poisonous symptoms. The inquest has been adjourned, however, for an analysis of the stomach and contents.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Suing for Drugs.

At the Limerick Quarter Sessions last week, before County Court Judge Adams, the Cork Chemical Company sued the Kilmallock Board of Guardians to recover the price of a quantity of medicines supplied to the workhouse at various periods. His Honour, in giving a decree for the full amount claimed, said this Board expended more money in litigation than all the Boards of Guardians in the province of Munster.

Personal.

Sir James Haslett, M.P., of the firm of Messrs. J. & J. Haslett, wholesale druggists, Belfast, has been elected a trustee of the Ulster Hospital for Women and Children.

The serious illness is announced of Mr. George H. Grindley, ex-Hon. Treasurer of the Pharmaceutical Society of Ireland. On Wednesday the news of his health was the reverse of assuring.

Dr. J. C. McWalter, M.P.S.I., Dublin, has placed a notice of motion on the agenda-paper of the South Dublin Union expressing pleasure at the approaching visit to Ireland of the King and Queen, and hoping that all parties will give their Majesties a cordial reception. Dr. McWalter is an ardent Nationalist, and the resolution coming from him is much appreciated by his Conservative colleagues on the Board.

Contracts.

The following contracts have been entered into by the Boards of Guardians named:—

Ballina.—Medicines: Messrs. Thacker & Hoff, at 21 per cent. abatement; surgical appliances: Messrs. Adamson & Co.

Mohill.—Medicines: Mr. Arthur Burns, at 10 per cent. off. The other tenders were: Messrs. McMaster, at $7\frac{1}{2}$ per cent. off, and Messrs. Boileau & Boyd, at 5 per cent. off. Two other tenders were received late.

Newcastle West.—Medicines: Messrs. John Clarke & Co., Dublin, at $25\frac{1}{2}$ per cent. rebate; surgical requisites: The Medical Supply Company, Sligo, $23\frac{1}{2}$ per cent. off list price.

Messrs. Boileau & Boyd (Limited), Dublin, ask us to say that in connection with the Kells Union medicine-contract, a note on which appeared in this column last week, they wrote asking the Clerk of Kells Union in what respect they had "failed to give satisfaction" in supplying medicines to that Union during the past twelve months (as they had not previously heard of it). The Clerk replied that the statement had reference to the delay in delivery of goods to Kilskyre Dispensary—a matter which was fully explained at the time, and was due to extreme pressure of other business.

The contract which the North Dublin Union Board of Guardians recently gave to Messrs. Sumner & Co., Liverpool, at the instigation of the L.G.B., was considered by the Guardians at their meeting on April 9, when Dr. J. C. McWalter proposed a resolution, which passed unanimously, to the effect that as the Guardians have been advised by the L.G.B. to give the contract for drugs to a Liverpool firm, and as it appears that the medical officers cannot procure drugs urgently needed in proper time from Liverpool, will the L.G.B. inform the Guardians what they are to do when drugs are urgently needed? Dr. McWalter has written to the Dublin papers to the same effect.

Analysts Differ.

At the meeting of the Oldcastle Board of Guardians a letter was read from Messrs. John Clarke & Co. (Limited) as follows:—

With further reference to the report from Sir Charles A. Cameron on drugs submitted to him from Ballyjamesduff Dispensary, which you were kind enough to send us some days ago, we have made an analysis of the tincture of opium ourselves, and we have had an independent analysis made by Mr. F. C. J. Bird, of London, who is an authority on alkaloids, and the two examinations practically agree. The sp. gr. is 0.9525 in the case of our own examination, and that of Mr. Bird is 0.9577; the extract in the case of our own examination is 3.0 grams per 100 c.c.; in the case of Mr. Bird it is 3.2 grams per 100 c.c. The alkaloid in both cases is 0.716, whereas in Sir Charles Cameron's analysis it is given as 0.63. We think it rather hard that the analysis of Sir Charles Cameron should differ in respect of the examination in both cases, because they are all the same samples of tincture of opium, and we cannot all be right, neither can we all be wrong.

The Guardians decided to refer the communication to Sir Charles Cameron for an explanation.

The Belfast Medicine-contract.

At the meeting of the Belfast Board of Guardians on April 6 the report of the L.G.B. auditor for the half-year ended March 31, 1902, was considered. Referring to the recent inquiry, the auditor says he has found it necessary to

reduce the prices charged, in accordance with an "extra contract," which was quite contrary to the regulations laid down as to wholesale current expenses. The excess, amounting to 12*l.* 7*s.* 6*d.*, has been refunded by Messrs. John Clarke & Co. (Limited), and placed to the credit of the Union. The difference in the price charged for sugar which the medical officers requisitioned, amounting to 1*l.* 10*s.* 1*d.*, has also been lodged to the credit of the Union by the medical officers. The report was considered by the Guardians to be satisfactory.

Cattle-requisites.

The following are some of the trade exhibitors at the Royal Dublin Society's spring show at Ballsbridge this week: Messrs. Paul & Vincent, chemical-works, Dublin, linseed-cakes, linseed oil, &c.; Joseph Thorley (Limited), King's Cross, London, cattle-foods, hay-spice, ovum, vitum, and cattle powders of various sorts; Jeyes' Sanitary Compounds Company (Limited), 64 Cannon Street, London, Jeyes' fluid, sheep-dip, sanitary powder, cattle-washes, &c.; the Phoenix Oil-mill, Dublin, cattle-foods, cakes, oils, &c.; Messrs. Day, Son & Hewitt, Dorset Street, London, medicines for cattle, &c.; Mr. W. Watson, pharmaceutical chemist, 61 South Great Georges Street, Dublin, weed-killers, eradicators, rat-poison, agricultural and horticultural drugs; Messrs. Hoyte & Son, 17 Lower Sackville Street, Dublin, cattle-medicines, weed-killer, Hoyte's horticultural glass, oils, colours, &c.; Messrs. Newton Chambers & Co. (Limited), Thorncliffe, Sheffield, disinfectants, farm and animal powders, soaps, &c.; Messrs. Gostling & Co., chemists, Diss, Norfolk, cough-balls for horses, condition-balls for horses, cattle, &c.; Messrs. F. Hawthorn & Co. (Limited), 70 Finsbury Pavement, London, E.C., cattle-mixtures, hay-spice, &c.; Messrs. Mills & Co. (Limited), Leicester and Glasgow, medicated horse-powder and cattle-foods; Mr. Roger Errington, Victoria Mills, Sunderland, horse and cattle spice, &c.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Personal

Among those who have graduated M.B., Ch.B. at Aberdeen University is Mr. William A. Watson, son of Mr. William Watson, chemist, 43 Castle Street, Aberdeen. The young graduate has had a successful career as a student, having taken several medals and numerous certificates.

Wine-licences.

At the Edinburgh Licensing Court on Tuesday, April 14, wine-licences were granted to Mr. Thomas Connell Smith (Messrs. T. & H. Smith) for their premises at 19 and 21 Duke Street; to Mr. James Arthur Gibson (Gibson & Co.), 19 South Clerk Street, and to Mr. William Inman, of Inman's Stores (Limited), for their premises at 1 South Clerk Street, 12 Earl Grey Street, 46 Leith Street, and 48 Shandwich Place.

Human and Bovine Tuberculosis.

Professor Hamilton and Mr. McLauchlan Young, in the Department of Agriculture of the University of Aberdeen, recently, on behalf of the Highland and Agricultural Society of Scotland, undertook an investigation in order to test the accuracy of the views of Professor Koch as to the probable incommunicability of bovine tuberculosis to mankind. The results have been communicated to the Society and republished as a pamphlet. They find that the inferences of Professor Koch were based entirely upon negative results—that is to say, upon his failures to communicate human tuberculosis to cattle. Their own conclusions rest upon positive results—that is to say, upon their complete success in doing what Professor Koch failed to do—and their conclusions fully establish the propriety of preventive precautions with regard to the milk and the flesh of tuberculous animals.

Glasgow Notes.

Glasgow has suffered sorely by the Edinburgh examination results.

The wholesalers are the only happy men at present. They are oppressively busy with coast-orders.

Mr. Cowie, hitherto manager of the Paisley branch of C. T. Cockburn (Limited), has taken over Mr. Gardner's branch shop in New City Road.

Mr. G. S. Kitchin, Nithsdale Road, Pollokshields, has acquired the business of Mr. J. B. McVitae, Langside, which he will conduct as a branch shop.

The spell of bright dry weather at Easter created quite a boom in photographic goods. "Special Rapids" went like hot cross-buns, and chemists who were new to this line were agreeably surprised and occasionally embarrassed by the brisk demand.

Intending candidates for the Kinninmont Prize competition are reminded that April 30 is the last date for names being received. Particulars may be obtained from, and names sent to, the Hon. Secretary, Mr. William L. Currie, 223 Byres Road, Dowanhill, Glasgow.

At a meeting of the Scottish Section of the Society of Chemical Industry on April 7, in the Technical College, John Street, Glasgow, Mr. Charles A. Fawsitt read papers on "Wood-spirit, with special reference to its Testing," and "Terebene, with special reference to its Drying Properties."

Dr. J. Lindsay Steven, who has been returned by a majority of one as representative on the General Medical Council for the Glasgow Faculty of Physicians and Surgeons, is a licentiates' man committed to the Quixotic enterprise of persuading the Council to retract on the doctors'-shop question.

The Corporation have recently fitted up a public telephone in the pharmacy of Mr. Dunlap Simpson, chemist, High Street, who caters well for the Townhead district, and has at present two medical men who use the consulting-room attached to his pharmacy—an excellent solution of the doctor's open-shop trouble.

The backwardness of the season is strikingly revealed by a stroll countrywards. Lilac and elder bushes are in bud, and the elm is in flower, but otherwise there are few signs of spring. The early-flowering and precocious *Petasites vulgaris* and the familiar *Ranunculus Ficaria* are loth to appear, and there is not even a spray of the blushing blossoms of *Daphne*.

At the last meeting of the Andersonian Naturalists' Society Mr. G. M. Woodrow exhibited specimens of the cashew-nut, and Mr. J. McLennan submitted a flower-scape of *Lathraea squamaria* (toothwort), from the banks of the Cart. At the same meeting Professor McAlpine, of the Glasgow Agricultural College, gave "A Chat about Grasses." He explained that, by the study of the methods of growth adopted by the shoots, the form of the roots, and the size and shape of the leaves, it is possible to choose the kinds of grasses suitable for lawns, meadows, or hilly ground.

Poisoning.

An old man named William McMillan was found dead in bed at his lodgings in Portobello, with four empty bottles which had contained laudanum on a table close to the bed side. A *post-mortem* examination revealed that death had been caused by opium-poisoning.

French News.

(From our Paris Correspondent)

DR. LABORDE, who drew up the remarkable report on alcoholic and essential liquors which was so fiercely discussed inside and outside the Academy of Medicine recently, died last week, aged 73. He was the author of a method of artificial respiration by rhythmic tongue-traction, which has rendered immense service. It may be remembered that the doctor and pharmacist—Dr. Berman and M. Luc—called in to attend to the late M. Zola and his wife, succeeded by this method in restoring Madame Zola to life in twenty-five minutes or so, but Zola himself was treated for three hours—by tractions, oxygen, &c.—by these two devoted attendants without success.

THE GRAND CHARTREUSE.—As mentioned last week, the famous distillery is now under the seal of the law. The brothers at the distillery—which, by the way, is a few miles down the valley, and not at the monastery itself, as is often supposed—have left for Tarragona, headed by Brother Justin, whose fifty years' directorship of the distillery has been accompanied by such unparalleled commercial success of the liqueur. Englishmen who, like myself, have slept a night in one of the bare "visitors' cells" of the picturesque old monastery—after a frugal meal, followed by a generous glass of the golden liqueur—will remember Brother Patrick, the English-speaking gate-porter. He was, it appears, the son of the nephew of Daniel O'Connell, and for many years welcomed the male guests at the monastery portal, while politely, though rigorously, enforcing the thousand-year-old rule that no member of the fair sex should cross its threshold. He has gone to Austria.

ACADEMY OF SCIENCES.—I cull these items from the report of the last meeting:—

Five years of study have convinced M. Laveran that the anopheline mosquitos are the propagators of marsh fever. Most of the French colonies—Madagascar, Djibouti, Senegal, Tonkin—breed mosquitos and fever, while in New Caledonia the insect and the disease are alike unknown.

M. Mascart read a very interesting account of the life and work of the late Sir George Stokes, foreign associate of the Academy. The researches of the eminent "Patriarch of Cambridge" regarding fluorescence and luminous phenomena were fully described.

M. Chauveau introduced, and MM. Berthelot and Mascart discussed, the question of ability to support high temperatures. The difference between animals, who support with difficulty a temperature above that of their own bodies, and the human subject, who can with impunity take a Turkish bath heated to twice his own temperature was commented upon.

M. Guignard, Director of the Paris School of Pharmacy, presented the fourth part of the scientific work on "The Vine," edited by M. Viala, and published under the auspices of M. Vermorel. The magnificent plates, reproducing remarkable water-colour drawings, excited general admiration.

A ROMANCE OF RADIUM.—M. Paul Adam is nothing if not up to date as a novelist, and whatever he touches he adorns with his graceful literary style. In last week's *Journal des feuilletons* is entitled "Radium." He tells how Daniel Keller, the scientific inventor, "proposed to manufacture radium cheaply to light and heat the habitation without paraffin, electricity, or coal. A block of radium on a guéridon would render all the services man demands of fire. Before the researches of Daniel Keller the kilogramme of radium would cost 50,000,000f. He calculated, if his theory was correct, to retail it at 50f. to 60f." While he toils in his laboratory the entrancing Carmen cheers him with her beautiful if somewhat frivolous presence. A chance word she drops suggests the line of thought and the road to success, the block of radium is produced "like a nickelled sun," reducing electric lights to "timid bluish flickers," and boiling the water in a carafe a metre away. Daniel, triumphant, glances towards Carmen, authoress of his success. Alas! the searching glow of the radium shows her "hideous and veritable" to the ardent seeker after absolute truth and beauty.

CHEMISTS' ASSISTANTS.—The Pharmacy Assistants' Association is anxious to secure the insertion of a clause in the new Pharmacy Bill giving assistants legal status. M. Leon Reynaud (Assistant-Secretary of the Syndicat des Préparateurs en Pharmacie, and a poet whose verses have on several occasions figured in the columns of the *C. & D.*) states that there are about 1,000 assistants in Paris and 5,000 to 6,000 in provincial France. In Paris the average monthly pay is 150f. to 200f. outdoors and 50. to 80f. indoors. In the provinces 100f. to 140f. and 40f. to 60f. are the average. In Paris pharmacies open at 7 A.M. or 8 A.M. and close at 11 P.M., which gives the assistants a fifteen or sixteen hours day, of which thirteen or fourteen are spent in actual work. In country towns the hours vary, but are practically as long. Some assistants get a weekly day off, in other cases a half-holiday only is given, and in some country places only two outings a month. Some large Parisian pharmacies, he says, employ from twenty to sixty assistants, some of whom have been twenty to thirty years behind the counter. The Syndicate proposes to petition the Chamber of Deputies and Senate when the Bill is under discussion, and forms are being distributed for signature by those interested.

South African News.

(From our own Correspondents.)

Note.—The CHEMIST AND DRUGGIST is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:—

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.
PHARMACEUTICAL SOCIETY OF CAPE COLONY.
NATAL PHARMACEUTICAL SOCIETY.
TRANSVAAL PHARMACEUTICAL SOCIETY.
RHODESIA PHARMACEUTICAL SOCIETY.

UNLICENSED PRACTITIONERS.—Mahomet Cassiem was found guilty at Cape Town, on March 12, of contravening the Medical and Pharmacist Act by stating that he was a doctor, and was fined 5*l.* A fine of 10*l.*, or a week's imprisonment, was passed on Maria Saporiti for practising as a doctor without a licence. The Magistrate in the latter case said the offence was purely a technical one, as accused had the necessary qualifications.

LICENSED.—The following gentlemen have been given licences to practise as chemists and druggists in the Cape Colony: John Falconer Young Stalker (Minor, 1898), formerly of Mossend, N.B.; Henry Inglis (Minor, 1890), late of Kirriemuir, N.B.; William Turnbull (Minor, 1899), formerly of Grangemouth, N.B.; William Henry Hughes (Minor, 1901), late of Clapham, London; William Benjamin Marshall (Major, 1902), formerly of Stapleford, Notts, Eng.; Joseph William Ward (Major, 1894), late of Gloucester, Eng.; John Samuel Strange (Ph.C. Ir., 1901), formerly of Belfast; and Stanley Wilfrid Hill (Colonial qualification, £102).

NATAL NOTES.—Writing on March 21, our Durban correspondent says the plague has broken out afresh after a lull of a few weeks. Several cases of deaths have occurred, and there is renewed activity in disinfectants.—The fierce discussions that took place a few months ago on the railway question have given way to opinions *re* the new harbour scheme, as propounded by Sir Charles Hartley and Sir Wolfe Barry. The general features of the scheme are considered good, but the proposal to extend the wharf in front of the Esplanade is bitterly resented by Durban people. The whole question of railway and harbour matters will come before Parliament shortly, and it is expected there will be some exciting debates.—The congestion of goods at the wharves in Durban is becoming worse than ever, and merchants are daily more alarmed. Meetings of the Advisory Board and the Point Agents' Association have been held with a view to relieving the situation, but it is found difficult to remedy matters owing to the apathy of the Government.

CAPE COLONY PHARMACY BOARD.—At the general meeting held at Cape Town on February 12, Mr. J. Alf. Mathew presiding, examination-papers from the New Zealand Pharmaceutical Society were submitted, and a letter read *re* the reciprocal exchange of certificates between various colonial boards. The matter was held over, pending receipt of a further communication promised by the New Zealand Society. A candidate for examination who submitted certain Danish educational certificates for consideration was requested to furnish the Board with full information as to their standard, &c. A chemist resident in Victoria wrote inquiring whether he could be registered in Cape Colony whilst residing in the former State. It was resolved that a reply in the negative be sent. A similar reply was sent to a medical practitioner in Cape Colony who wished to know whether he could be registered as a chemist and druggist, and in reply to a further inquiry whether he could practise as a chemist and druggist under an assumed name, it was resolved to refer him to the Medical and Pharmacy Act. Letters from the Colonial Secretary (1) *re* a proposed Medical and Pharmacy Amendment Bill, (2) enclosing a letter from the Pharmaceutical Society *re* "only registered chemists and druggists acting as directors of a company," were read and referred to the Executive Committee to be dealt with. The following gentlemen were accepted for registration: Messrs. G. Cleghorn and C. W. Austin.

Colonial and Foreign News.

THE DEATH MASK.—A music-hall actress, Emma Brand, committed suicide at Berlin on April 14, by means of a wire mask, filled with cotton wool soaked with chloroform, which she fastened over her face.

CANADIAN CHANGES.—The Bole Drug Company are building a new warehouse at Winnipeg, Manitoba. A company of Pittsburgh capitalists are establishing plant and machinery at Sandwich, Ontario, for the manufacture of soda ash, caustic soda, and bicarbonate of soda.

A VIRCHOW MEMORIAL.—A memorial tablet has been placed on the house at 10 Schellingstrasse, Berlin, where Virchow dwelt for so many years. It bears the words: "Here lived, from 1864 to his death, Rudolf Virchow, born October 13, 1821, died September 5, 1902. Berlin, 1902."

HASHISH-SMUGGLING IN EGYPT.—The other day seven large cases of soap at the Alexandria Customs-house were found to be full of hashish. On breaking a cake of soap the Customs police found that within a thin external saponaceous covering there was concealed a quantity of the drug, and a similar discovery was made throughout all the cases.

ST. LOUIS EXHIBITION.—German chemical-manufacturers were not at first inclined to participate in the St. Louis Exhibition, but a preliminary organising committee has now been appointed to take the necessary steps to arrange an exhibit representative of the German chemical-industry. It comprises Dr. Böttinger, Dr. Knöfler, Professor Lepsius, Dr. Merck, and Dr. Oppenheim.

A NEW DYSENTERY-CURE.—In his report on the botanic gardens of the Straits Settlements the Director, Mr. H. N. Ridley, says, with regard to *Brucea Sumatrana*, introduced to Singapore from Pahang in 1892, and recommended as a cure for dysentery, there has been a fairly good demand from various parts of the world, particularly India. A piece of ground was planted with it, and the shrub fruited six months afterwards and grew readily. A bag of 10 lbs. weight of seed was sent during the past year to Messrs. Burroughs Wellcome & Co., of London, for experiment.

PARAGUAYAN MEDICINAL PLANTS.—The United States Consul at Asuncion, in a short report on medicinal and textile plants, states that jaborandi-leaves are in demand for the cure of diseases requiring free respiration. They can be obtained cheaply and in a reasonably large quantity. Some attention is being paid to the cultivation of vetiver, and ipecacuanha also grows in Paraguay, but the quality is not equal to Brazilian. Aybri-kaa is the name of a plant associated with the native who made its properties known. It is considered a sure cure for bronchial catarrh. It is taken principally as a tea, and is only obtainable in one district of the Republic in a fair quantity.

RUSSIAN CHEMICAL-INDUSTRY.—According to the *St. Petersburg Messenger of Trade and Industry* the characteristic feature of the chemical-trade last year was the almost total suspension of the import of chemical-products and the decrease in prices, due to the growth of competition and improvements in manufacture. The demand for mineral acids, salts, and alkali, it is said, has been largely supplied by home manufacturers, the import being confined to small ports and frontier towns. In addition to the works at Warsaw and Moscow, a new plant with modern improvements was completed at St. Petersburg, which last year caused a reduction of 30 per cent. in the price of sulphuric acid and by-products. The trade in chemical products for manufacturing purposes shows a considerable increase in indigo and oxalic acid. The supply of the latter almost doubled during the last two years, and now amounts to from 3,000 to 3,500 poods (48.7 to 56.4 tons) per month. A plant has been recently erected at Kineshma, in the Kostroma government, for manufacturing benzol and aniline from petroleum.

The Board of Trade are in receipt of a translation of a Dutch decree, dated February 7, exempting from Customs duty, subject to certain conditions, sulphuric ether imported into Holland for use in factories and works. This seems a periodic decree.

American Notes.

PLASTER-OF-PARIS TRUST.—The so-called gypsum trust, known as the United States Gypsum Company, capitalised at \$7,500,000, and consisting of thirty-five producers, reports a net profit of \$279,136 for the eleven months it has been in operation. These profits fall far short of the estimate made when the combination was floated in 1901.

INCORPORATED.—The well-known business of Schieffelin & Co. has been incorporated at Albany, with a capitalisation of \$1,000,000. The purpose is to protect the business in case of death of any member, and to preserve it to the families of the present members. The stock is all taken by the officers, who are as follows:—President, Mr. William W. Clark; first Vice-President, Mr. William Jay Schieffelin; second Vice-President, Mr. William S. Mersereau; third Vice-President, Mr. William L. Brower; Treasurer, Mr. Henry Schieffelin Clark; Secretary, Mr. Schuyler Schieffelin.

TAXING SCIENCE.—Messrs. Noyes Brothers & Cutler, importing and wholesale druggists, of St. Paul, have registered a protest in Washington against the payment of \$12,000 in duties exacted by the Customs officials on clay crucibles, filtering-paper, glass tubes, and other laboratory articles for use in the State University. The protest points out that the Supreme Court has decided that imported articles especially designed for use and principally employed in any branch of science, such as are used for experiment and instruction in institutions of learning, shall be admitted free.

CONFISCATED SYNTHETICS.—The O. Porsch Chemical Company, of New York, were recently convicted in the Federal Courts of defrauding the Revenue in the importation of essential oils. The Porsch stock is in the possession of the United States Marshal, who is to sell the goods at the appraiser's warehouse by public auction on April 28. The stock is valued at several thousand dollars, and the auction is expected to be one of the most important of the kind held in New York for years. The essential oils and compounds offered include heliotropin, hyacinth, violette, rosenol, coumarin crystals, and nerolin.

GOVERNMENT PURE-DRUG LABORATORY.—Mr. Lyman F. Kebler is the chief of the new pure-drug laboratory, Department of Agriculture, at Washington. The functions of the laboratory, says the *Pharmaceutical Era*, will include an investigation of the qualities of drugs now on the market, the nature and value of new drugs, especially vegetable drugs from the Philippines, a thorough study of drug-adulteration, the discovery, as far as possible, of all drugs that are now adulterated, the nature of the adulteration, the most common adulterants, and the drugs on the market most extensively adulterated. The information thus gained will be published in a bulletin giving usual and unusual adulterants and a list of drugs classified accordingly. A close watch will be kept for new or unusual adulterants, and the quality of the drugs upon the market will be continually tested and new articles analysed.

PATENT-MEDICINE LEGISLATION.—The committee of the Pennsylvania Pharmaceutical Association protest against the Mayne and the Herbst Bills recently introduced into the House of Representatives. The Mayne Bill provides that all proprietary or patent medicines shall contain upon the label the formula of the preparation and the proportions of the ingredients, and that no person shall be employed in the manufacture of any proprietary or patent medicine who is not a regular graduate in pharmacy and registered under the laws of the Commonwealth. The Herbst Bill would make it unlawful to sell or have in possession any medicines or mixtures which contain opium or its alkaloids, cocaine, chloral, or pharmaceutical preparations of cocaine or its alkaloids, morphine, codeine, heroin, or any compound containing whisky, brandy, wine, or other intoxicating liquors, except by separate order or prescription of a qualified physician. Another measure provides that preparations containing more than 5 per cent. alcohol shall be considered alcoholic beverages, and dealers selling such medicines will be compelled to pay retail liquor-dealer's licence. The avowed object of the measure is to prevent the evasion of the liquor-licencee.

Winter Session.

Aberdeen Pharmaceutical Association.

A SPECIAL MEETING was held in Gordon's College on Tuesday, April 7. The Vice-President (Mr. A. L. Bruce), in the absence of the President, occupied the chair. There was a good attendance of members. After the minutes of the previous meeting had been read and confirmed Mr. RITCHIE read a historical sketch of the Society of Chemists and Druggists of Aberdeen, which he said was formed in 1839 with the object of improving the conditions of the assistants and apprentices, the improvements being the shortening of the hours of labour and the establishment of a library. With the advent of examinations classes were formed in the various subjects, so that young men might acquire the requisite knowledge. As the stringency of the examinations increased the Society had advanced, and it now has one of the fine-t equipped schools of pharmacy in the country. Mr. Ritchie was strongly of opinion that local associations should do more than they had hitherto done to establish such schools. [We may add that the existence of this Society since 1839 has been continuous, the name only having been changed.]

Blackpool Chemists' Association.

THE monthly meeting was held at the Palatine Hotel on Thursday, April 7, the President (Mr. Turver) in the chair. The SECRETARY read a letter from the secretary to the Federation of Local Pharmaceutical Associations *re* the Council-election.

The Secretary also read letters from the President of the Board of Agriculture arranging to receive a deputation, together with representatives from the Preston Association, this month in Preston, and one from the M.P. for the Blackpool division agreeing to receive a deputation at some convenient date after Easter. A letter was read from Mr. W. L. Currie soliciting the support of the Association at the coming Council-election. Decision was postponed until all candidates have expressed their views.

Mr. JOHNSON reported the result of his canvass on the wholesale buying of proprietaries. Only two chemists were enthusiastic about it, one remarking "we shall be looking after each other's business and neglecting our own." The strongest supporters of the scheme were absent. Mr. Johnson was thanked for visiting chemists and obtaining facts, and the paper was ordered to lie on the table.

Grimsby Chemists' Association.

THE annual general meeting of this Association was held at the Oberon Hotel, Grimsby, on April 7, Mr. C. Willson (Vice-President) in the chair. The SECRETARY (Mr. H. W. Colley) read the

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which stated that various committee and general meetings had been attended during the year by the faithful few and criticised by those who never came. The committee regret the continued apathy of some of their members, and hope for better things in future. Reference was made to the P.A.T.A. Conference and its good effects, the report of the Poisons Committee and its unjustifiable conclusions. The Association was represented at a meeting of Lincolnshire chemists who discussed the report with Mr. Bremridge, and the committee have endeavoured to get the local members of Parliament to receive a deputation from the Association on the Pharmacy Bill. The balance-sheet showed a decreasing balance in the hands of the Treasurer, owing to extra expense incurred during the year and to a slight decrease in subscriptions. One of the features of the year has been the establishment of a library in connection with the Association, which it is hoped will induce apprentices and assistants in the town to join the Association. The report closed with a sympathetic reference to the long and serious illness of their esteemed President.

The TREASURER having presented his statement, both reports were approved.

ELECTION OF OFFICERS.

The following were re-elected officers of the Association for the ensuing year: Mr. R. Cook, J.P., President; Mr. C. Willson, Vice-President; Mr. J. Hawdon, Treasurer; Mr. H. W. Colley, Secretary. The following are the Council: Messrs. T. C. Palmer, J.P., Carter White, C. Dewing, J. Moore, T. Sneath, with the officers *ex officio*. Messrs. Hearne and Barker were re-elected Auditors. It was resolved to hold quarterly general meetings for the future, the first to be held in June.

SUNDRIES.

The SECRETARY then read correspondence from the Secretary of the Federation of Local Pharmaceutical Associations, and it was decided that the subscription for the year be paid forthwith, and that the question of altering the rules of the Federation be brought forward again at the first general meeting.

The Council-election was then discussed, and it was decided that the Association ask its members to vote for Messrs. Cooper, Cross, Currie, Hills, Symes, Walshaw, and Wotton, and that special efforts be made to see that every member of the Society in the district votes.

Manchester Pharmaceutical Association.

THE annual meeting of the members of this Association was held at the Victoria Hotel, Manchester, on Wednesday evening, April 8, Mr. Geo. S. Woolley (President) in the chair.

REPORTS.

Mr. J. C. KIDD, Hon. Secretary, read the annual report, which gave particulars of the various meetings and *conversazione* held during the session. It also stated that the total number of members at the beginning of the session was ninety-three. Ten new members had been elected, eight had resigned, and two had died, leaving the number as at the beginning.

Mr. A. J. PIDD, Hon. Treasurer, submitted the balance-sheet. The subscriptions of members amounted to 23*l.* 1*s.* 6*d.*; there had also been a donation of 2*l.* 2*s.* The expenses amounted to 17*l.* 17*s.* The balance in hand on the year's working was over 4*l.*

APATHY.

The PRESIDENT, in moving the adoption of the report and balance-sheet, regretted that so few members had thought it worth while to attend that night. The limited attendance at the meetings of the Association was the more to be regretted inasmuch as during the session the subjects had been of considerable interest. It was time something was said to the trade generally about the apathetic way in which they regarded all the organisations maintained in their interest. It was becoming a serious matter indeed that such apathy should exist. It was no use for gentlemen taking no part in the work going on to cry out afterwards to their fellow-workers, when some matter affecting their interests cropped up, "What is the Pharmaceutical Society doing?" Something should be done to stir up the trade. At all events, members might devote one night a month to the consideration of their own affairs, and certainly they might devote one evening in the year to attend the annual meeting, and hear what the Council had to say for itself, and to hear the report of the year's working. The work done during the year had been satisfactory. The meetings they had held had been of a high order and of great interest. The meeting that was called to hear the address of Mr. Glynn-Jones had been advertised by the sending out of 500 circulars, but only about fifty people attended. On the other hand, the *conversazione* in the medical department of the Owens College was very well attended. That was another unfavourable feature. A *conversazione* or a smoking-concert was always well attended, but the solid business of the Association was left to those few who really devoted themselves to the interests of the trade. There was one meeting which had not been alluded to in the report because it was not a meeting of the Association—it was a meeting called by Mr. Bremridge. It was a most interesting meeting, and would, he thought, bear good fruit. About 150 gentlemen were present. Mr. Bremridge made a most exhaustive statement as to what the Council was doing, explaining the

position of the Bill and the difficulties in the way, and suggesting what he thought should be done. Altogether he thought it was a very valuable occasion, and would bear good fruit in the future. He could only express his satisfaction with the work of the year, and trusted they would be able to maintain the interest to an equal extent in the year that was coming.

Mr. W. KIRKBY seconded the motion, heartily endorsing what the President had said.

Mr. HARRY KEMP, in supporting the motion, suggested that they might excite a little more interest in the minds of those members who did not attend their meetings if the annual report was printed and circulated amongst them. These members paid their annual subscriptions, but the Council would like them to get something more for it than the Treasurer's receipt. (Laughter.) The cost would be trivial, and they had a balance in hand.

The suggestion was favourably received. After some conversation the President said the matter would be left in the hands of the Council to carry out, the beginning of the session being mentioned as the most suitable time for issuing the report.

Mr. W. WOODRUFF suggested that a catalogue of the books in the library of the Association should be sent out with the Report, and this also was left to be submitted to the Council.

The report and balance-sheet were then adopted.

THE NEW COUNCIL

for the ensuing year was elected as follows: Messrs. J. Grier, W. Kirkby, H. Kemp, J. C. Kidd, W. Lane, D. Lewis, A. J. Pidd, F. W. Ringer, G. S. Woolley, G. L. Westmacott, and J. Wild.

On the proposition of Mr. HARRY KEMP, Mr. G. S. Woolley was unanimously re-elected President.

Mr. WOOLLEY said he was getting into years and wanted to be relieved of the post, but should be pleased to accept office for the ensuing year.

Messrs. Harry Kemp and W. Kirkby were re-elected Vice-Presidents. Mr. Pidd was re-elected Hon. Treasurer, and Mr. Kidd Hon. Secretary. Mr. A. L. Blair was appointed Auditor in the room of Mr. Blyton, resigned. Mr. Walton, who was appointed Librarian of the Association, promised to prepare a catalogue of the books.

THANKS.

Mr. KEMP, referring to the *conversazione* held in January, said votes of thanks had been given to many people for the assistance they had rendered one way or another to make the *conversazione* a success, but nothing had been done in the way of thanking the President for his services. Mr. Woolley had paid all the bills. It was a highly successful affair, and the least they could do was to place on record their thanks to the President for his generosity.

Mr. KIRKBY seconded, saying the *conversazione* was a credit to the Association.

Mr. G. WILKINSON supported the motion, which was carried, with much applause.

Mr. KEMP, on behalf of his colleagues on the Council, said it was his pleasure to ask the President to accept a simple testimonial of their regard for him and his work. It would not disgrace the walls of his house, and would serve to remind him of the long services which he had rendered to the Association.

The testimonial consisted of a framed illuminated address, as follows:—

Manchester Pharmaceutical Association.

To GEORGE S. WOOLLEY, President of the Association.

DEAR SIR,—We, your colleagues on the Council of the Manchester Pharmaceutical Association, desire to express to you our sense of appreciation of the many and valued services which you have rendered to pharmacy in your capacity as President of this Association, as well as to your very generous action in providing the means whereby the recent *conversazione* was carried to such a successful issue, so as to constitute it an altogether unique function in the history of Manchester pharmacy.

The address bore the signatures of the two Vice-Presidents and the members of the Council.

Mr. WOOLLEY said he could assure them the testimonial was a great surprise to him. He appreciated it very highly,

and considered it the greatest and most honourable compliment that had ever been paid to him, with, perhaps, one exception, in his life. Mr. Kirkby had alluded to the *conversazione* as a credit to the Association: it was a great satisfaction to himself. It was with great gratification that he felt himself able to assist the efforts of the Council in carrying out the *conversazione* programme to a successful issue. He found it very difficult to express all the thoughts that arose in his mind, but sincerely thanked his colleagues for their kindness and for the grateful way in which the testimonial had been presented to him.

Mr. KEMP proposed a vote of thanks to Mr. J. Grier and Mr. W. Kirkby for "the enormous amount of labour" they undertook in connection with the *conversazione*. The PRESIDENT seconded the motion in a few cordial sentences, and the resolution was carried unanimously.

Mr. KIRKBY acknowledged the compliment.

A vote of thanks was also passed to the Hon. Secretary (Mr. Kidd) for his services during the year.

THE NEW PHARMACY BILL.

The PRESIDENT said Parliament had adjourned for the Easter recess, and nothing would be done for a few days. They must be prepared to carry out the instructions of the Council at any moment in order to assist in every possible way the carriage of the Bill through Parliament.

A conversation thereupon ensued, in which Messrs. KIRKBY, RINGER, KEMP, PIDD, and the PRESIDENT took part. In the course of further discussion Mr. LANE referred to the fact that the medical papers are poorly posted in regard to the measure, and Mr. D. LEWIS said the *Daily News* appeared to be the only paper that understood the chemists' side of the subject. Chemists ought to do something.

Mr. PIDD said pharmacists could do something, as was shown by what they accomplished in the Compounds Bill, and that ought to stimulate them in the present crisis.

Mr. KEMP referred to what had been done with respect to methylated spirit in the withdrawal of a certain clause before 10 o'clock one night. Their Parliamentary Committee was awake and active.

The PRESIDENT said they must go as one man. The 1863 Act was entirely mutilated because of the divisions which existed amongst themselves.

The meeting shortly afterwards terminated.

Newcastle-on-Tyne Chemists' Association.

A MEETING was held in the Hôtel Métropole, Newcastle, on Wednesday evening, April 8. The President (Mr. G. F. Merson) was in the chair, and there was a good attendance of members to hear Mr. ARTHUR PAYNE, F.C.S. (of Messrs. Mawson & Swan) discourse upon

ORTHOC-HROMATIC PHOTOGRAPHY IN PRACTICE.

The lecturer and his assistant (Mr. Hughes) showed a fine selection of pictures on the screen illustrative of the results obtained by the use of colour-corrected plates, whilst the *modus operandi* of the process was clearly and comprehensively described. The detail in the specimen pictures, when shown alongside the same study photographed under precisely similar conditions, was most marked, and the shade and perspective were rendered with the utmost fidelity. The colour-corrected pictures showed up exactly as they would appear to the eye at the moment of exposure. An interesting discussion ensued, and Mr. Payne was cordially thanked.

POLITICS AND PLEASURE.

The PRESIDENT gave a brief résumé of the work being accomplished by the Association's Watch and Parliamentary Committee.

Letters were read from the Federation of Local Associations suggesting that the members of the Society should meet and consider the candidates for the forthcoming Council election. It was decided to do so. The PRESIDENT intimated that he had, as their representative, received and accepted an invitation to be present as a guest at the annual dinner of the Pharmaceutical Society in May. Gratification was expressed at the recognition thus shown of the work and importance of local associations.

Other routine business closed the meeting.

Trade Notes.

MESSRS. BARCLAY & SONS (LIMITED), 95 Farringdon Street, E.C., have been appointed sole wholesale agents for Craddock's medicated blue soap for shaving.

"THE TRAVELLING PARTNER" is the title of a quarterly journal for advertisers and business men published by Smith's Advertising Agency, 100 Fleet Street, E.C.. The issue for April contains ideas which chemists and druggists would find useful, and a free copy of the journal will be sent to any of our subscribers who write for it to the above address.

ENSIGN FILM COMPETITION.—Prizes amounting to 100*l.* are offered for photographs taken on ensign roll films (made by Austin Edwards). Photographic chemists should send to Messrs. G. Houghton & Son (Limited), 88 and 89 High Holborn, W.C., for a supply of leaflets for distribution amongst customers. The photographs entered for competition must be sent in before October 31.

A SNOW-WHITE COLD-CREAM is a desideratum that all pharmacists can appreciate. We have received from Mr. H. E. Clement, of Hampton Hill, a sample of cream that he makes, and which he puts on the market through Messrs. Burgoine, Burbidges & Co., Coleman Street, E.C., at 2*s. 6d.* per lb. It is not exactly B.P., but has the advantage over the official article in not turning rancid and not separating.

PHOTOGRAPHIC CATALOGUE.—Messrs. James Woolley, Sons & Co. (Limited), Victoria Bridge, Manchester, have just issued the 1903 edition of their photographic catalogue. It has an artistically designed cover, and runs to about 170 pp. The "Victoria" cameras are leading lines in the catalogue, but other photographic requirements are shown in well-selected variety. A copy of the book will be sent to any of our subscribers who ask for one.

NEW LISTS.—Messrs. T. Howard Lloyd & Co., St. James's Street, Leicester, send us a complete set of their price-lists. These are the monthly drug-list, surgical-instruments list, and three supplements—(1) pearl-coated pills, granules, and capsules; (2) veterinary preparations; (3) counter-attractions. The last named is attractively illustrated, a coloured lithographic inset giving an idea of what the preparations, put up for chemists' sale, really look like. The counter-attractions are numerous, an endeavour having been made to meet the various requirements of the trade in different districts. The lists may be obtained on application.

Business Changes.

MR. J. FOLI has succeeded to the business of the late Mr. A. Nicholls, pharmacien, Nîmes.

The Anglo-American Drug Stores have been opened at 48 Charlotte Street, Landport.

MESSRS. TYLER & CO. (LIMITED) have opened a drug-store at 9 High Street, Marylebone, W.

MR. W. J. WILLIAMS, chemist and druggist, has commenced business at Llanbradach, S. Wales.

BOOTS CASH CHEMISTS (SOUTHERN) (LIMITED) are opening a new branch at 282 High Road, Chiswick.

BOOTS CASH CHEMISTS (SOUTHERN) (LIMITED) have opened their second shop at 314 Edgware Road, W.

MR. R. JENZER has acquired the business formerly carried on by Mr. E. Pulver, chemist, at Interlaken, Switzerland.

MR. S. J. ALLEN, chemist, 155 Praed Street, Paddington, W., has re-opened the business of Messrs. Polk & Williams at 16 Bishop's Road, Paddington, W.

THE drug-business lately carried on by Mr. W. Evans, at 118 Kingsland Road, N.E., has been acquired by Messrs. Walker & Hairis, East Street, City Road, E.C.

MR. A. BUTTERWORTH, chemist and druggist, of Ashton-under-Lyne, has acquired the business formerly belonging to Messrs. T. G. Hughes (Limited), at Bradley Green, Biddulph, near Congleton, Cheshire.

MESSRS. D. & J. FOWLER (LIMITED), Australian merchants and drug exporters, have removed from 6 East India Avenue to 2 Lime Street Square, E.C.

MR. H. HOFSTETTER, who was for some time in Messrs. W. Schacht & Co.'s pharmacy at Finsbury Pavement, has opened an English and American pharmacy at 6 Broglieplatz, Strassburg.

MR. A. E. COVERDALE, pharmaceutical chemist, Pickering, has purchased the old-established business of "George & Welch," at 68 Broad Street, Worcester, which he will continue under the old name.

MR. JOHN SHACKLETON, having retired from the firm of Ormrod, Taylor & Son, manufacturing chemists, of Walsden, near Todmorden, the business will be continued in future under the same style by Mr. Thompson, of Helliwell.

MR. C. C. REECE (Henry Squire), chemist and druggist, has removed from 96 High Street to 94 High Street, Marylebone, W., owing to rebuilding operations, and for the same reason Messrs. Gristock & Co., chemists, have removed from 97 High Street to 72 High Street, Marylebone, W.

Personalities.

MR. WILLIAM THOMAS GENT, chemist, Misterton, has been returned to the Rural District Council.

MR. G. H. HOWELLS, chemist and druggist, has been elected to the Maesteg Urban District Council.

MR. P. J. ASHFIELD, chemist and druggist, Rhyl, has won a seat on the Rhyl Urban District Council.

MR. GEORGE BAILEY, of Invercargill, N.Z., who has been fifty years in the Colonial drug-trade, is now in London.

MR. F. TIDSWELL, chemist and druggist, has been elected a member of the Denholme Urban District Council.

MR. B. BROOME, chemist and druggist, of Woodford Green, Essex, has been re-elected a member of the Urban District Council.

MR. PERCY KNOTT, chemist and druggist, Bolton, has been elected unopposed as a Guardian for the North Ward of the Bolton Union.

MR. T. M. BAXTER, chemist and druggist, Bourne, was last week returned at the top of the poll in the election for the Urban District Council.

DR. HUGH ROBERT MILL (not Professor John Milne) took part in the discussion on coloured rain at the Chemical Society last week (page 578).

MR. A. F. COLLIS, proprietor of the Bath Drug Company, 11 Abbey Churchyard, Bath, was unanimously elected parish warden at the Easter vestry meeting.

MR. E. WIGHTMAN BELL, chemist and druggist, Spalding, has been re-appointed District Agricultural Analyst for the Holland Division of Lincolnshire.

MR. CHARLES BRADSHAW ROBINSON, proprietor of Messrs. Thomson & Taylor's business in Bombay, has been made a Justice of the Peace for the town and island of Bombay.

MR. CHARLES T. BAKER, of Messrs. Smith, Stanistreet & Co., Dalhousie Square, Calcutta, has been elected to represent the Calcutta Trades Association on the Municipal Corporation.

DR. THOMAS STEVENSON communicates to the last issue of the *British Medical Journal* an account of his pathological and analytical work in connection with the recent tartar-emetic poisoning-cases.

MR. A. PROCTOR ATKINSON, resident-manager for Messrs. Duncan, Flockhart & Co. in London, is sailing by the *Canada* next Wednesday for a health-and-pleasure trip in Canada and the United States, and will return at the end of May.

MR. J. F. EARDLEY, pharmaceutical chemist, Sheffield, is one of the two first directors of the Sheffield Model Dairy (Limited), a company which has been formed to take over the Sandygate Model Dairy, which is doing this business on modern scientific lines.

MR. G. B. PICKWORTH, of Blackburn, the Hon. Secretary of the North-East Lancashire Chemists' Association, has been seriously ill during the past three months, and his medical advisers have ordered him away for absolute rest and change as soon as he is able to travel. We join with his colleagues on the Association in hoping that he will soon be robust again.

"THE MAN WITH THE WOODEN FACE" is the title of a new novel by Mrs. Fred Reynolds, of Hill Carr, Ilkley, which has been published this week by Messrs. Hutchinson & Co. It is a tender, occasionally more than tender, story of a "little teacher" who, left alone in the world at 17, earns her living by pianoforte lessons. One summer she has a wonderful piece of luck in securing a share of a prize for naming the most popular Academy pictures. With the money she takes a three weeks' holiday in North Wales (the first for twenty years). There she meets the "man with the wooden face," besides a varied boarding-house company, which gives Mrs. Reynolds scope for some excellent character-sketching. The scenery, too, is well portrayed. Mrs. Reynolds shows distinct advance in the novel, especially in the grasp of character and by a bold and unusual stroke she leaves the heroine nameless, except as "the little teacher." The past of the "man with the wooden face" is peculiar, and without spoiling the reading of other people by giving away the story, we may say that the face is not "wooden" in the last chapter. The novel is published at 6s.

Birth.

CASELY.—On April 11, at 202 Turner's Hill, Cheshunt, the wife of Mr. Thos. Casely, M.P.S., of a daughter.

Marriages.

JUDGE—GOODYEAR.—At St. John's Church, Wakefield, on Monday, April 13, by the Rev. C. D. H. Macmillan, M.A., Joe Judge, chemist and druggist (Secretary of the Wakefield and District Chemists' Association), to Ivy Louise, only daughter of Captain H. S. Goodyear, St. John's Villas, Wakefield.

PARSONS—MARTIN.—At Moseley Road Wesleyan Chapel, Birmingham, by the Rev. C. Sargisson, on April 11, Harold J. Parsons, chemist and druggist, Hammersmith, W., to Dora, daughter of Mr. H. Martin, of Moseley Road, Birmingham.

Deaths.

BRIDGES.—At 24 Sloane Street, Knightsbridge, on April 5, Mr. Charles William Bridges, pharmaceutical chemist. Aged 61.

FAIRBANK.—Mr. N. K. Fairbank died at Chicago on March 27, at the age of 73. Mr. Fairbank was born in Sodus, Wayne County, N.Y., but had lived in Chicago for nearly half a century. He was the founder of the N. K. Fairbank Company, one of the largest concerns manufacturing lard compounds and soap in the United States.

JEPSON.—At Hathersage, on April 7, Mrs. Ann Jepson, widow of the late George Jepson, chemist and druggist, Cambridge Street, Sheffield.

PULLAN.—At 4 Royal Parade, Harrogate, on April 11, Mr. John Richard Pullan, chemist and druggist. Aged 70. Mr. Pullan was a member of one of Harrogate's oldest families. He was apprenticed to Messrs. Waite & Gascoigne, chemists, of Harrogate, and in 1858 purchased the business, which he continued up to the time of his death. In his younger days he was a noted lawn-tennis player and an expert bowler, and was for many years treasurer of the Harrogate Cricket Club. He was one of the earliest members of the Harrogate and Claro Lodge (1,001) of Freemasons, and filled the chair of Worshipful Master in 1870-71. He leaves a widow, three daughters, and a grandson.

VAUGHAN-JONES.—On April 13, Annie Sarah, wife of Penrhyn Vaughan-Jones, chemist and druggist, 21 Withington Road, Manchester.

Bankruptcies and Failures.

Re Morgan Michael Joseph D'Arcy, Abbey View, Tipperary, Pharmaceutical Chemist.—A public meeting will be held at the Bankruptcy Court, Dublin, on April 28, to audit assignee's accounts and to declare a dividend.

Re W. S. Fulleylove, trading as a chemist at High Street, Blackheath, Staffs.—The Official Receiver for the Dudley Bankruptcy Court reports that the result of the realisation of debtor's estate shows that the unsecured creditors will receive a first and final dividend of 1s. 2½d. in the pound. This is payable on April 22 at the Official Receiver's offices, 199 Wolverhampton Street, Dudley.

Re Edward Ernest Brunsden, 14 Body Road, Reading, chemist's assistant.—The public examination was held last week at Reading, when the debtor stated that he had filed his petition on account of proceedings being taken to recover solicitors' costs and alimony due to his wife. Proceedings had been taken by his wife in the Divorce Court, which he had defended up to a certain point, but in which she had obtained a decree absolute, and he had been ordered to pay costs and 2l. per month to her as alimony, 15l. of this alimony being still owing. Debtor said he was an assistant to his father, and formerly he was paid 42s. per week. Since the end of last year, however, this had been reduced to 17. 10s. per week in consequence of trade having declined owing to the scandalous statements spread about the town by his wife and her friends. He said it was not true that business had declined on account of his own conduct, and stated that he was innocent of the charges which his wife had brought against him. He was not willing that the Official Receiver should apply for an order for the setting aside of a part of his income for the payment of his wife's alimony, but said he was perfectly willing to pay it. The reason that he had not done so was that he had never been asked for it. The Official Receiver pointed out that the order of the Divorce Court was served upon him, and that a judgment-summons had been obtained, which, he thought, was a sufficient application for the money. Ultimately the examination was adjourned.

Deed of Arrangement.

Clarke, Thomas Edward, Shifnal, chemist and druggist. Trustee, Richard J. Owen, Shifnal, auctioneer. Dated, April 4; filed, April 8. Liabilities unsecured, 419l. 19s. 8d.; estimated net assets, 140l. The following are amongst the creditors:—

	£ s. d.
Cooper, Tabor & Co., London	36 0 0
Ellis, J., Shifnal	17 0 0
Harris, Philip & Co., Birmingham	27 0 0
Salter, J. B., Shrewsbury	265 0 0

Gazette.

Partnerships Dissolved.

Arthur, D., and Jones, H. E., under the style of Arthur & Jones, Uxbridge Road, Shepherd's Bush, W., and Thornfield Road, Shepherd's Bush, W., medical practitioners

Blacker, A. E., and Harris, H. E., under the style of Blacker & Harris, physicians, &c., Bristol.

Brookhouse, C. T., and Macartney, E. H., under the style of Brookhouse & Macartney, Ashby House, Wickham Road, Brockley S.E., and Jerningham Road, New Cross, S.E., surgeons, &c.

Child, H., and Cropp, E. L., under the style of Child & Cropp, Reading, general medical practitioners.

The Bankruptcy Acts, 1883 and 1890.

ADJUDICATION.

Ashmore, Arthur Haliburton, Ashmore, Henry Leslie, and Ashmore, Henry Beckwith (trading under the style or firm of Ashmore & Son), Mincing Lane, London, E.C., and New York, U.S.A., merchants.

Legal Reports.

Dentists Act.

BREACHES OF THE ACT.

AT Brighton on April 9, A. Deuchars was fined 7*l.* 10*s.* and costs in respect of two summonses for having, while not being registered under the Dentists Act, 1878, and not being a qualified medical practitioner, taken and used the addition or description D.D.S. (doctor of dental surgery).

Moss HARRIS was similarly summoned for taking and using a description, "Genuine and painless American extraction; Diploma of America, Gold Medallist, Diploma d'Honneur, Paris, licentiate and registered in France," such description implying that he was registered under the Dentists Act. Two other summonses were returnable against this defendant, who was fined 5*l.* and costs, and ordered to pay the costs in the other cases.

Sale of Food and Drugs Acts.

SWEET SPIRIT OF NITRE.

AT the Thames Police Court on Thursday, April 9, Mr. William Ballard, chemist and druggist, Holly Cottage, Lower Path, Loughton, was summoned, before Mr. Dickinson, for selling sweet spirit of nitre from which 20 per cent. of ethyl nitrite had been abstracted, so as to affect injuriously its quality, substance, and nature, without making disclosure of the alteration. Mr. Phelps, who represented the Poplar Borough Council, said he would withdraw the summons. Mr. Dickinson accordingly marked the summons "Withdrawn."

[We are informed that the sample sold was *not* deficient in ethyl nitrite, as it yielded between the minimum and maximum of nitrous oxide required by the British Pharmacopoeia.—EDITOR.]

LIME-WATER.

AT the South-Western Police Court on April 8, before Mr. Sheil, Mr. C. R. Toyne, chemist and druggist, Twenty Street, S.W., was fined 40*s.* and 12*s.* 6*d.* costs for selling lime-water certified to be deficient in lime to the extent of 30 per cent.

AT the same time Durbin Brothers, pharmaceutical chemists, 106 High Street, Wandsworth, S.W., were fined 3*l.* and 12*s.* 6*d.* costs for selling lime-water deficient in lime to the extent of 75 per cent.

New Companies & Company News.

ROBINSON'S, OF LONDON AND NEW YORK (LIMITED).—Capital 1,200*l.*, in 1*l.* shares. Objects: To manufacture and deal in all substances and apparatus capable of being used in the business of dentists, and to carry on the business of manufacturers and fitters of teeth, &c. Registered office, 16 Poultry, E.C.

BRANSON'S DRUG-STORES (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggists, dispensers, and dealers in drugs, chemists' sundries, surgical instruments, patent medicines, fancy articles, &c. The first subscribers are: J. Branson, dispenser, and Mrs. R. Branson, 7 Victoria Avenue, Barrow; T. Greenall, Bull Hotel, Barrow, publican; J. Chandler, railway employé, and Mrs. S. A. Chandler, 23 Dumfries Street, Barrow; E. Sutcliffe, 50 Dalton Road, Barrow, newsagent; and F. H. Palmer, 1 Paxton Terrace, Barrow, jeweller. No initial public issue. Registered without articles of association. The first directors are J. Branson, T. Greenall, and F. H. Palmer. Registered office, 49 Dalton Road, Barrow-in-Furness.

SUTTON GARDNER (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To adopt an agreement with W. S. Gardner, and to acquire and carry on the business of manufacturing artificial teeth and extracting, filling, stopping, and treating natural teeth, now carried on by him at 1 Flint Street, Leicester. The first subscribers are: J. S. Haigh, schoolmaster, and Blanche Haigh, schoolmistress, 16 Victoria Street, Masborough; W. S. Gardner, 1 Flint Street, Leicester, dental mechanician; Mrs. M. Philp and Mrs. H. A. Gardner, Laurel House, Cheltenham; Mrs. A. Gardner and C. E. Gardner, 301 High Street, Cheltenham, house-furnisher. No initial public issue. The first directors are W. S. Gardner (managing director) and Mrs. H. A. Gardner. Qualification, 50*l.* Remuneration of ordinary directors as fixed by the company.

AT A SALE OF SHARES at Sheffield on April 7, fifty 1*l.* (fully paid) Boots Cash Chemists (Eastern) 5 per cent. second preference shares realised 21*s.* 3*d.* each.

PARKE'S DRUG STORES (LIMITED) announce the payment of the interim dividend on the preference shares for the half-year ending March 31 at the rate of 6 per cent. per annum, less income tax.

H. GILBERTSON & SONS (LIMITED).—Owing to the transfer of the business of this company to Messrs. Aytron & Saunders, of Liverpool, it has been agreed, with the assent of the debenture-holders, to wind up the company voluntarily.

SAMUEL MEGGITT & SONS (LIMITED).—At a meeting of preference shareholders of this company (in liquidation) at Sheffield on April 3, a scheme for the reconstruction of the company, which has been prepared by a committee of the shareholders and liquidators, was carried by a large majority.

GERMAN CHEMICAL DIVIDENDS.—Messrs. Meister, Lucius & Bruning (Limited), of Höchst-on-the-Main, have announced a dividend for 1902 at the rate of 20 per cent., the same as for the previous year. The Badische Anilin und Soda-Fabrik has declared a dividend of 26 per cent. for 1902, against 24 per cent. for the previous year.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. DALTON, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," March 25, 1903.)

"YAN YEAN"; for aerated and mineral waters. By J. O. Comrie, 686 Garscube Road, Glasgow. 252,264.

Combination of devices for a label; for Luce's eau de Cologne. By Luce's Eau de Cologne Company (Limited), 12 Little Britain, E.C. 249,651.

"ORCHIDOL" (no claim for "Orchid"); for perfumery. By the Action-Gesellschaft für Anilin-Fabrikation an der Treptower Brücke, Berlin, c/o Abel & Imray, Birkbeck Chambers, W.C. 251,684.

(From the "Trade-marks Journal," April 1, 1903.)

"IRIS"; for bichromate of potassium. By R. Wedekind & Co., Commandit-Gesellschaft, Uerdingen on-Rhine, c/o W. Lloyd Wise, 46 Lincoln's Inn Fields, W.C. 250,911.

Picture of "FORGET-ME-NOT"; for articles in Class 2. By S. H. Ward, 48 Cranmer Street, Nottingham. 249,960.

"PARO-NIKA"; for cattle-medicines. By Baker & Son, 15 Eastgate Square, Chichester, chemists. 250,769.

"ASELLICIDE"; for chemicals. By W. J. Bush & Co. (Limited), 28 Ash Grove, Hackney, E. 252,524.

Combination of devices and the word "VIXOL"; for a catarrhal specific. By H. F. Höveler, trading as the Vixol Syndicate, Lambeth Hill, E.C. 251,209.

"OCULONE" (no claim for "Oculo"); for an eye-lotion. By the Oculone Company, 61 Gracechurch Street, E.C. 251,235.

"KOLAYO"; for chemicals. By Laboratoires Sauter Société par Actions, Geneva, c/o Reginald W. Barker, 56 Ludgate Hill, E.C. 252,511.

"BISEDIA"; for chemicals. By Giles, Schacht & Co., 52 Royal York Crescent, Clifton, Bristol. 252,630.

"BILBERETTES" and "BILBERETTE" (no claim for "Bilberry"); for chemicals and foodstuffs. By S. H. Ward, 48 Cranmer Street, Nottingham. 252,641 and 252,685.

"GO-WHIT"; for photographic apparatus. By Gowenlock & White, 11 High Street, Bloomsbury, W.C. 252,211.

"ANCAM"; for cameras. By the City Sale and Exchange Photographic Stores, 81 Aldersgate Street, E.C. 252,329.

"ARKO"; for cameras. By F. Winterhoff & Co. (Limited), 58c Gray's Inn Road, W.C. 252,564.

"SELUBRIA" (no claim for "Salubre"); for a table-salt. By Clarke, Nickolls & Coombs (Limited), Hackney Wick, E. 252,380.

- "NÜKOL"; for articles in Class 48. By the "Junon" Toilet Supply Company, 14 Southampton Street, Strand, W.C. 250,455.
- "ROSIMOHLEA" (no claim for "Rose"); for perfumery, &c. By J. W. Thornton, trading as the Rosimohlea Company, 40 Alexandra Street, Southend-on-Sea, chemist's assistant. 251,698.
- "CROUTEENA"; for a hair-wash. By J. H. Mosheimer, 9 Station Parade, Streatham, S.W. 252,201.
- (From the "Trade-marks Journal," April 8, 1903.)
- "PALARITO"; for goods in Class 1. By Goolass, Wall & Co. (Limited), 42 Seel Street, Liverpool. 252,137.
- Japanese picture design; for dyestuffs and chemicals. By the Chemische Fabriken vorm. Weiler-ter-Meer, Merdingen, c/o Urquhart & Ball, 57 Barton Arcade, Manchester. 250,757.
- "TORKIT" (no claim for "Torf"); for disinfectants. By Chemische Fabrik vorm. Rud. Grevenberg & Co., Heuslingen, c/o D. Young & Co., 11 Southampton Buildings, W.C. 252,563.
- "REUNOL"; for veterinary preparations, &c. By J. A. Gatehouse, 15 Methley Street, Kennington Park Road, S.E. 252,956.
- "SOLOTO"; for a corn and bunion, &c., preparation. By E. Presley, 12 St. Augustine's Parade, Bristol, chemist and druggist. 248,481.
- "SYLVIA"; for medicated soap. By A. Descroix, 79 Mark Lane, E.C. 251,001.
- Distinctive label with wording; for Alcock's porous plasters. By the Alcock Manufacturing Company, 22 Hamilton Square, Birkenhead. 250,709. "Mark has been used in respect of the said goods by the applicants and their predecessors in business continuously since upwards of forty years before August 13, 1875."
- "QUINCAMP"; for medicines. By W. M. Bramley, 77 Rookery Road, Handsworth, Birmingham, chemist and druggist. 252,398.
- "METATÁ" (no claim for "Metá"); for pills. By Ellen S. D. Taplin, 27 Sutherland Place, Bayswater, dispenser. 252,542.
- "BILBEROID"; for chemicals and foodstuffs; "BILBERINE" for foodstuffs and mineral waters, and "BILBERETTE" for mineral and aerated waters. (No claim for "Bilberry.") By S. H. Ward, 48 Cranmer Street, Nottingham. 252,640; 252,682; 252,633; 252,684, and 252,636.
- "AFRIDOL"; "NOCTAL," and "SATUROL" (no claim for "Saturo"); for pharmaceutical products in Class 3. By the Bayer Company (Limited), Elberfeld, c/o Newton & Son, 6 Breams Buildings, Chancery Lane, E.C. 252,746, 252,747, and 252,748.
- "NERVOL" (no claim for "Nerve"); for chemicals. By A. S. Wehner, 57 Holborn Viaduct, E.C. 252,974.
- "CARBITONE"; for photographic paper. By the Baker & Rouse Proprietary (Limited), Victoria, Australia, c/o The Trademark Owners' Mutual Protection Association (Limited), 31 Basinghall Street, E.C. 252,768.

Westminster Wisdom.

(From our Parliamentary Representative.)

IRISH DRUGS.

Mr. Field on Wednesday, April 8, asked Mr. Wyndham why the Local Government Board of Ireland objects to Boards of Guardians specifying that tenders for only Irish manufactured pharmaceutical preparations will be received. The official answer given was in the following terms: "Some Boards of Guardians in Ireland, when recently advertising for the annual supplies of medicines for the sick poor, stipulated that only tenders for Irish manufactured pharmaceutical products would be received. This action appears to have been suggested by a Dublin firm of manufacturers. Such a proposal, if adopted, would restrict free and open competition, by excluding English and Scotch firms from tendering for these goods, and is not one of which the Local Government Board, in the interests of the taxpayers at large, could approve. The hon. member is doubtless aware that one-half of the cost of drugs and medicines is recouped to local authorities out of money provided by the State."

Pharmaceutical Society of Ireland.

EXAMINATION FOR LICENCE.

THE following are the questions set at the April examination:-

MATERIA MEDICA.

- What is saffron? State its source, N.O., and preparations into which it enters. Give tests for adulteration.
- Give alkaloidal strength and dose of all extracts directed to be standardised.
- State source, N.O., and preparations of horseradish-root. It contains a glucoside: mention any other drug containing the same substance.
- What is adeps prep.? Of what is it composed? Give tests for its purity, and state how it differs in composition from adeps lanze.

5. Contrast the composition of gum acacia and gum tragacanth. State how they may be distinguished in powder and in solution. Give source and N.O. of each.

BOTANY.

- What do you understand by "respiration," "absorption," "assimilation," and "transpiration" in plants?
- Describe the structure of a young parenchymatous cell, and explain how it differs from a full-grown cell of the same kind.
- What is meant by self fertilisation and cross-fertilisation? Mention any plants in which the wind is the agent in pollination.

GENERAL AND PHARMACEUTICAL CHEMISTRY.

(Time—One and a half hour.)

- Write equations for the reactions which take place between the following substances in solution, and name the compounds formed:—

Arsenic acid and sulphuretted hydrogen.
Sodium formate and mercuric chloride.
Ammonia and mercuric chloride.
Potassium arsenite and iodine.

- How would you test a sample of lactic acid for glycerin, sugars, and sarcolactic acid?

- By what tests can nitrogen in its various forms be detected in drinking-water?

- What is the action of boiling alkalies on the following: Ammonium chloride, white precipitate, urea, asparagin?

- Describe shortly the processes by which the sulphuric acid of commerce is made, and state what impurities it is liable to contain.

- How would you separate morphine from opium with as little loss as possible?

PHARMACY.

(Time allowed—Two hours.)

- Name the tinctures of the Pharmacopœia which are directed to be standardised. Describe how each is prepared, omitting the estimation process.

- Give sp.gr. of the following: strong solution of lead subacetate, spirit of nitrous ether, solution of ammonia, purified ether, dilute hydrocyanic acid, liquid extract of opium.

- How are the following prepared? Fluid magnesia, Rochelle salt, black wash, glycerin of starch, tartarated iron, purified oxalic acid.

- Give the composition of—compound tincture of cinchona, confection of pepper, Plummer's pill, ointment of rose-water, compound tincture of rhubarb, compound powder of catechu.

- What precautions are to be observed when selling strychnine, cocaine hydrochloride, phosphorous pills, tincture of cantharides?

EXAMINATION RESULTS.

THE following are the pass-lists of the recent examinations:—

Pharmaceutical Licence Examination.—The following passed: W. H. Howe, R. I. Eccles, W. Baxter, H. C. Smyth, C. R. O'Carroll, (D. Rea and J. P. E. Wright), W. Corridan, C. F. Fairweather, H. G. Parker, J. J. Bolger. Fifteen candidates were rejected.

Preliminary Examination.—The following passed: W. M. Keys, G. R. Hifle, W. F. Ellis, J. Duggan, (D. O'Gorman and P. O'Callaghan), R. Bates, W. F. Kirby, P. P. Coffey, J. R. Waddell, J. J. Walsh, T. J. White, T. W. Hadden. Eleven candidates were rejected.

Scientific Progress.

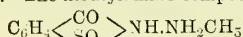
Citarin.—This body is anhydromethyl citrate of sodium, and has the property of easily splitting off formic aldehyde in the body and also of dissolving uric acid secretions. It has been placed on the market by Messrs. F. Bayer & Co., of Elberfeld.

A Polymerised Chloral.—A solid polymer of chloral without taste, and possessing powerful narcotic properties, has been prepared by Erdmann, by the action of perfectly anhydrous aluminium chloride. It yields chloroform when acted upon by alkalies, but its constitution has not yet been determined. (*Apotheker Zeitung*, 1903, 175).

Adulterated Turpentine.—With turpentine at its present high price there is plenty to be found which contains a notable proportion of well-purified mineral spirit. According to Herzfeld (*Zeit. Anal. Chemie*, 1902, 446) this can be approximately determined by oxidising the turpentine with strong nitric acid, and measuring the residual oil which is not attacked. Care must be taken, or considerable loss may ensue through the violence of the reaction.

New Hypnotics.—Fischer and Mering (*Pharm. Zeit.*, 1903, 225) find that the alkyl-substituted acetyl ureas possess very powerful hypnotic properties. The same is true for the substituted malonyl ureas, and in both cases the fact is observed that the dimethyl groups have practically no action, the methyl-ethyl compound but small action, whilst the diethyl and dipropyl groups are most efficacious. Diethyl-acetyl urea has the construction $(C_2H_5)_2CH.CO.NH.CO.NH_2$. The typical body put on the market by Merck is veronal, a crystalline body soluble in water, with a slightly bitter taste, and melting at 191° .

Nitrogen Compounds of Saccharin.—A series of compounds of saccharin with nitrogenous bases of the methylamine type has been prepared by Givaudan, and covered by a French patent (No. 322,096). These compounds are analogous to the ammonia salt, and comprise the mono-, di-, and tri-methylamine and ethylamine series. They are characterised by their easy solubility in water. The methylamine compound—



—forms a white crystalline powder melting at 157° . The corresponding diethylamine salt melts at 75° – 80° .

Oils of the Monardæ.—An interesting report on the oils of this group appears in the March issue of the *Pharmaceutical Review* (1903, 109), by J. W. Brandel and J. J. Beck. Oil of *Monarda didyma* was stated by Brunn so long ago as 1796 to contain a crystalline deposit, an evident reference to thymol. The oil has a sp. gr. of 0.902, and a levorotation of 10° . The herb is known as Oswego tea, and from 100 lbs. only 14 c.c. of oil were obtained. The authors could detect neither thymol nor carvacrol in it. The oil distilled from the corolla of *Monarda fistulosa* has a sp. gr. 0.958 and contains carvacrol, thymoquinone, and thymoquinone. The oil from the leaves of the same plant had a sp. gr. 0.924 and a rotation of $-0^\circ 9'$. The oxidation-products of carvacrol which are found in the corolla oil do not appear to be present in the leaf oil.

Cod-liver Oil.—Wijs (*Pharm. Central.*, 1903, 152) gives the results of his examination of a number of samples of cod-liver oil, from which it would appear that the iodine-absorption rises in value with the sp. gr. The following figures will illustrate this point:—

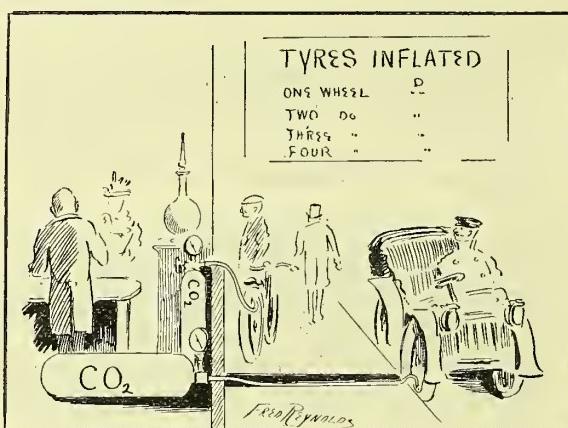
Sp. Gr.	No. of Samples	Iodine-value (Mean)
0.920–0.9204	...	154.5
0.9215–0.9219	...	165.2
0.9220–0.9224	...	167.9
0.9225–0.9229	...	171.8
0.9230–0.9234	...	172.6
0.9235–0.9239	...	174.4
0.9240–0.9244	...	176.4
0.9245–0.9499	...	127.6

Constituents of Coca-leaves.—Hesse (*Jour. für Prakt. Chemie*, 66, 401) has examined the leaves of the coca obtained from Java, and has extracted four definite compounds from them which are not alkaloids. These bodies are: (1) Cocacitin, $C_{28}H_{52}O_{17}$, a yellow crystalline compound with three molecules of water, melting at 186° . It appears to be a glucoside, yielding a sugar, cocaine, $C_6H_{12}O_6$, which may be identical with dextro-talose, since its osazone melts at 180° C. (2) Cocacetene, $C_{16}H_{12}O_7$, forming yellow needles with three molecules of water of crystallisation. It melts at 260 – 265° . (3) Cocoflavin,

$C_{54}H_{58}O_{11}$, forms yellow crystals with four molecules of water. It yields dextrose and galactose on hydrolysis with dilute sulphuric acid and is, therefore, probably a glucoside. (4) Cocoflavetin, $C_{20}H_{12}O_7(OCH_3)_2$, forms green-yellow needles with three molecules of water. It melts at 230° . It contains two methoxy groups, but otherwise its constitution is unknown.

Detection of Raw Milk.—In a note communicated to the *British Medical Journal* by J. E. Saul attention is called to the fact that on treating 10 c.c. of milk with 1 c.c. of 1-per cent. solution of orthomethylaminophenol sulphate $[(OH)C_6H_4.NHMe]_2\cdot H_2SO_4$, then adding one drop of hydrogen-peroxide solution (10 vol.), a very vivid deep red colour is produced. Milk that has been previously boiled and cooled remains uncoloured, a faint pink only developing on standing. The red colour is so strong and pronounced that as little as 1 per cent. of raw milk, if added to heated milk, may be detected with ease. The presence in the milk of boric acid, borax, formaldehyde, or sodium carbonate or bicarbonate does not interfere with the reaction. If the milk has become sour, the acid should previously be neutralised. The photographic developing-agent sold under the name of "ortol" appears to be a mixture of orthomethylaminophenol sulphate with quinol, and the latter body may be removed from it by extraction with ether so as to get the necessary reagent.

The Kaleidoscope.



A Ballad of CO₂.

The chemist sat glum in his little back room,
And he wished for the times that were;
For the bottom had dropped from his latest boom
As he did to himself aver.

He pondered deep and he gazed so hard
At the toe of his patent boot
That he cracked its sole with his keen regard,
And he jumped at the motor's foot.

"At last!" he cried, "I have won the fight,
'As all deep thinkers do;
I will speed the lightning motor's flight
With a tube of CO₂.
And when the inconsequent motorist
Is stricken with punctured tyre
I will plaster the wound with a surgical twist
And pump till it rise no higher."

The scheme was great and the pile was high
The ingenious chemist raised,
For the motors came from far and nigh
Till the town was all amazed.
Aud "Panhard" struggled with "Merced-és,"
While "Daimler" was on fire,
To show how the race could be won with ease
On a carbonated tyre.

The chemist he chants his tuneful lay
Behind the dispensing-screen
As he hands out the petrol, a barrel a day,
And gallons of pure benzine.
For his is the "Pharmacy Automobile,"
And his fortune is mainly due
To a motor's toot,
And a patent boot,
And a gallon of CO₂.

Observations and Reflections.

BY XRAYSER.

Yours for Co-operation

is the pretty style in which Kodak (Limited), signs a circular addressed to retailers' of its manufactures. Kodak's notions of co-operation seem to be somewhat of the nature of those which in Goldsmith's story the giant entertained when he enlisted the assistance of the dwarf; the dwarf took the kicks while the giant pocketed the halfpence. The company is now advertising a new non-curiable film, and naturally customers want that kind. This makes it difficult for retailers to unload their old stocks, and the company is only willing to exchange the old films for the new ones to the extent of the one month's purchases previous to the introduction of the improved kind. This is a limited sort of co-operation.

The Triumph of Chemistry

over Nature in the manufacture of "synthetic scents" is one of the showiest, and at the same time one of the most useless, of the victories of science. It would be churlish to deny to investigators the glory due to them for their skilful reproduction in the laboratory of odours, flavours, colours, and remedies more or less nearly corresponding to their well-proved natural prototypes. But it is not at all certain that, except a few German chemists, anybody has benefited by these achievements. The total extinction of the madder-industry in France, and the threatened destruction of that of indigo in India, are calamities which will need a vast weight of advantage elsewhere to balance. Likewise, wherever a new chemical process supplants some gift of Nature, more or less extensive local ruin follows, and the civilising effect of the interchange of commodities between the ends of the earth is arrested. All that can be said on the other hand is that we get the artificial products of modern laboratories—such luxuries as vanilla flavouring, salicylic acid in medicine, and essence of violets in perfumery—much reduced in price. Is the result worth the cost?

Synthetic Products,

let it be remembered, are not yet, and perhaps never will be, quite as good as the originals which they are displacing. If it were not for the price we should all prefer to be dosed with the true salicylic acid rather than the artificial imitation; and if the latter had not been invented the price of the natural medicine would have been largely reduced long before now. The conversion of tar into raspberry-jam by way of an aniline colour and an ether flavour is clever, but the palates of the coming generation will have to become sadly debased if they are going to enjoy their synthetic raspberry-puffs as much as we did those made from the fruit. So with odours.

Records of the Perfumers' Art

are found in all histories. The Egyptians and the Hebrews revelled in strong scents and aromatics. Esther, we read, was purified for six months with oil of myrrh, and another six months with sweet odours, before becoming queen to Ahasuerus. Solon legislated against the use of perfumes, and Socrates mocked at it. Nero used more spices and odorous resins at the funeral of Poppea than Arabia could produce in ten years. The dandies of the eighteenth century, both in England and France, were inordinately scented. Versailles was known in the time of Louis XV. as *la cour parfumée*, and Madame de

Pompadour was said to have spent 20,000*l.* a year on perfumes. Though the few use far less scent now, the many use more, and probably the total value of the business was never greater. But if anything can destroy it, synthesis will do so. Artificial otto will hardly rival the distillations from the gardens of Persia and Bulgaria; a coarser standard will prevail; the old sources of sweet odours will be crushed before the new ones are perfected; the poetic fancy which associates a pleasant perfume with a favourite flower, with the breath of the forest, with Ceylon's isle, with hayfields, or with mountain air, will have the bottom knocked out of it; perfumery will become vulgar, it will be abandoned first by society, and gradually the fashion of mere unscented cleanliness will descend, and patchouli and frangipanni will float on the Sunday afternoon breezes no more.

The Exeter Chemists

have invited the co-operation of their grocery neighbours in the struggle for better profits on proprietary goods, and from the report of their conference I gather that the utmost amiability prevailed. This is nice enough from a human family point of view, and at first sight it looks all right as a move of trade tactics. But I am small-minded enough to doubt the wisdom of association between chemists and grocers. The attempt to work the two classes of traders together on a large scale for this very object has already proved a failure, and that failure went a good way towards stiffening the backs of unsympathising proprietors. Grocers, no doubt, prefer twopence to a penny as well as we do, but they have been trained to regard the proprietary-medicine business rather as a draw than as a source of profit, and this idea they will not easily get rid of. Moreover, they can never become the formidable competitors with the proprietors that we are, nor do we wish that they should. But that is the weapon which makes our protests effective.

Radium

is stirring up the old theories. Up-to-date chemists have been turning their backs on the atomic theory of late, but Sir Oliver Lodge finds it necessary in its naked crudity to explain the radiation of heat from the new element Radium emits showers of particles "which are probably atoms," says Sir Oliver. We are getting very near, too, to the discarded theory of the imponderables. The discharge of a million of these atoms per second, we learn, would only reduce the weight of "a bit of radium" (the Professor might have been more exact) by the twentieth part of a milligramme in a century.

The Possessive Case Difficulty

is worth clearing up, particularly for the sake of those chemists and advertisers whose names happen to end in *s*. "Bill-poster," who defends Sims' Tatcho and Bass' stout, does so, I understand, on the ground that a name ending in *s* is a plural form! Plural nouns ending in *s*, it is true, take only the apostrophe in the possessive case, but that is because they are plural, not because they end in *s*. In singular nouns ending with the *es* sound (*e.g.*, Thucydides) and in the expressions "for righteousness' sake," and "for conscience' sake," the possessive *s* is omitted. These are, I believe, the only exceptions allowed to the 's as the formation of the possessive case for singular nouns. What "Bill-poster" overlooks is that in every case the word should be printed as it is spoken. Would he ask for "Bass' ale" or "Guinness' stout," or "Sims' Tatcho"? He hardly could. The time may come, he concludes, when the 's will be obsolete. It may; but meanwhile let us obey the most cultured custom.

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An American Move.

WHEN the anti-substitution movement was started in London newspapers last August we pointed out that it synchronised admirably with a similar movement in New York. Again we find a coincidence between the articles to which reference is made in the following note and a movement in New York which the "Yellow Press" of that city has been hysterically inflating. Monopolies are stronger in the United States than they are with us, the dollar is more powerful, and class legislation easier set going. To one or all of these causes is due an attempt at law-making in the New York Legislature on the part of Mr. Bostwick and Senator Dowling, each of whom has promoted a Bill dealing with substitution. The Bostwick Bill seeks to compel all importers and manufacturers of proprietaries to affix descriptive labels to their goods, on which should also appear the date of manufacture and a statement as to how long the goods will keep. The Bill is the outcome of the deliberations of the Society of Medical Jurisprudence, the object being to check the substitutor, the adulterator, or the retailer who knowingly sells a substituted or adulterated article. Originally this Bill was a drastic affair. It provided for a certificate of purity, and had a section relating to deterioration. But the Society experts and the promoters of the Dowling Bill had a conference, and the Bostwick Bill was largely merged into the Dowling measure. The latter deals wholly with "substitution," and would amend the penal code so as to make "substitution" on any pretence a misdemeanour. The promoters include "some of the leading manufacturing chemists of New York City," who, according to their representative, have found much trouble in conducting prosecutions against substitutors of their preparations, owing to the difficulty of proving (as the penal code requires) that human life had been endangered.

The Dowling Bill seeks to strike out the words in the penal section regarding the danger to life, as well as certain words in another section which provides that the substitution sale must be made "wilfully, negligently, or ignorantly." The hearing of the composite Bill took place at Albany last month, and delegates from the Drug-trade Section of the New York Board of Trade and Transportation, from the New York State Pharmaceutical Association, the New York Board of Pharmacy, King's County Pharmaceutical Association, the German Apothecaries' Society, and the Manhattan Pharmaceutical Association, with representatives of the drug-trade from all parts of the State, were there to oppose the measure. The wholesalers were prepared to combat the clauses of the original Bostwick Bill, but found the ground partly cut from their feet by the withdrawal of most of its ridiculous requirements, and its "substitution" by the Dowling Bill. The representatives of the retailers denied the allegations of substituting made against pharmacists, and pointed out that the penal code, taken in connection with the existing pharmacy law, is quite adequate for protection against substitution. One speaker pointed out that substitution *per se* is not a criminal but a commercial offence, and it can be properly dealt with under the civil laws. The Bills have no chance of passing into law.

Substitution.

THERE are two points in the *Daily Mail* article on "The Pirate in the Chemist's Shop" (see page 639) which stand out from the rest. The first is the phrase—

The clerks in some of the chief "cutting" houses.

"Clerk" is American for "shop assistant." Why such a word happens to be used in a London newspaper it is, perhaps, not difficult to conjecture. The second point refers to inaccuracy and substitution in dispensing. The "first" exposure of the kind is referred to. No place is mentioned except "a large town in the provinces," but our records show that the first thing of the kind was in 1876 at Sheffield, when twenty chemists were involved; and Mr. A. H. Allen, the public analyst, dealt with the matter in his periodical report. It caused a good deal of comment at the time. We contrast what the *Daily Mail* writer says with what Mr. Allen himself said:

"DAILY MAIL" WRITER.

It was decided to draw up a test prescription and give this to be made up by twenty chemists. Intentionally several expensive drugs were included in the prescription, and the medicine was designed to be a tonic which would be used to strengthen those who were exhausted by long or dangerous illnesses. It will thus be seen that the chemists who made up this prescription must have been aware that it was one of an important character, and that it was highly desirable that it should be made up exactly, and no drugs used but those specified. The result of this experiment was startling. Only two out of the twenty chemists made up the prescription accurately and honestly. The consequence was that in several cases prosecutions were instituted and punishment inflicted.

The high colour and inaccuracy of the *Daily Mail* writer's statement suffice to put him out of court as a writer on sub-

stitution. What we particularly object to, however, is the general character of his charges. He says he has desired to make it clear throughout that no attack is made upon the great majority of tradesmen, who scrupulously uphold our high traditions of national integrity. But that there is a considerable minority of traders who violate those traditions has been proved—and may be proved by anyone who cares to take the trouble of personal experiment—only too conclusively.

The writer has not succeeded in his endeavour, which was probably not very strong from the outset; and by saying "that many chemists do not hesitate to depart from the directions given in prescriptions by substituting cheaper and inferior drugs in order to increase their profit" he libels the whole craft. During the twenty-seven years that the Sale of Food and Drugs Act has been in force there have not been a hundred convictions under it for inaccurate dispensing. Millions of medical prescriptions have been dispensed in that time by thousands of individual chemists, and it is grossly unfair to take a few examples of inaccuracy and use them as the *Daily Mail* writer has done. The same perversion of the truth characterises the whole series of articles, and so long as anti-substitutors do this sort of thing they will repel the sympathy of that great majority of honest men for whom they profess to speak.

Franco-British Trade.

THE British Chamber of Commerce in Paris, in its annual report for 1902, shows that we are still doing the largest individual business with the Republic—the United States and Germany occupying, as was the case in 1901, second and third positions. Germany is, however, making a bold bid to capture French trade. While that country's exports to France in 1902 increased by 20,754,000f., our exports decreased by 18,995,000f.; but the United States showed the greatest decrease—viz., 29,178,000f. Our imports from France increased by 78,818,000f., Belgium's by 70,637,000f., and Germany's by 49,502,000f. The United States imported 15,661,000f. less merchandise from France in 1902 than in 1901. The exports of French produce to Great Britain in 1902 represented 30 per cent. of the total export trade of France, and the amount nearly equalled the exports from France to Germany, Belgium, and the United States during the same period. The trade between France and Russia was less in 1902 than in 1901. The whole matter is summed up in the following statement, which represents values in thousands of francs :

	Imports	Exports				
		1902	Increase or Decrease	1902	Increase or Decrease	
England ...	582,857	—	18,995	1,277,055	+	78,818
United States ...	427,959	—	29,178	237,394	—	15,661
Germany ...	422,633	+	20,754	492,957	+	49,502
Belgium ...	351,520	—	6,159	632,938	+	70,637
Argentine Republic	225,699	—	28,400	41,543	—	9,790
Russia ...	208,604	—	6,582	39,205	—	666
Spain ...	156,056	—	833	127,520	+	6,508
Italy ...	148,280	+	8,230	170,832	+	15,518
Turkey ...	107,512	+	1,911	46,227	—	1,138
Switzerland ...	100,536	—	2,289	230,446	+	13,880
Brazil ...	86,446	+	16,007	34,631	—	3,568
Austria-Hungary	78,099	—	9,679	29,457	+	7,417
Other countries ...	1,519,524	+	101,744	876,713	+	12,461
Totals ...	4,415,725	+	46,531	4,236,918	+	223,977

In spite of the fact that we sent less merchandise to France last year, our exports of chemical products increased

by 4,055,000f., the total value being 20,476,000f. We sent bismuth and salts to the extent of 644,000f. (70,987 lbs.), an increase of 90,000f. (8,817 lbs.). There was also a revival in musk by 167,000f., or 3,325 oz., the total being 7,455 oz. Fixed oils declined from 1,047,000f. to 981,000f., and medicinal plants and herbs from 1,236,000f. to 1,129,000f. in 1902. Exports of similar products from France to this country were as follows :

	1901	1902
	Fr.	Fr.
Chemical products	... 14,893,000	14,944,000
Perfumery	... 2,995,000	3,015,000
Essential and fixed oils	... 9,373,000	8,464,000
Medicinal plants and herbs	5,374,000	5,215,000

Our lessened exports to France are explained by the fact that we sent less coal, wool and wool-waste, copper, cast iron, and fewer ships. We, however, sent more chemical products, woollen goods, indiarubber and guttapercha, gold and platinum, &c., than was the case in 1901. The British Chamber of Commerce in Paris is a flourishing body, and those firms who are desirous of expanding their commerce with France would do well to become members, as its principal object is to protect and advance British trading interests in that country.

Cutting and Anti-cutting.

The last two issues of *Advertising* (published monthly by Smith's Advertising Agency, 100 Fleet Street, E.C.) contain a number of opinions on this and the co-related subject—substitution—which are of special interest to chemists and druggists, especially as the Editor sums up the matter thus :—

A few retailers with whom we have discussed this question entirely repudiated the suggestion that an increase of price would in any way hamper the progress or affect the sales. They substantiated such repudiation by citing instances where protected prices had been enforced, and increase in charge to the public necessitated thereby, but without any serious falling-off in the sales taking place; on the contrary, the sales of such goods with them had increased by reason of the fact that, with protected prices, it was not worth their while to attempt substitution. Now, in order to strengthen our hands with manufacturers, we invite our retail subscribers to tell us of their experience with goods which have been increased in price to the public under the above-mentioned circumstance. Now, retailers, here's another opportunity given you for helping "Our Greater Mission" forward. Don't fail to help us. We have taken up the matter in your interest.

In the March issue of our contemporary manufacturers' opinions on price-protection are given. These are varied. One is in favour, the next objects to his business being interfered with by retailers; another objects to dictating to retailers and wholesalers what they should sell his goods at; a fourth says that 97 per cent. of their wholesale customers expressed themselves in favour of protected prices; the next found the fixing of a minimum selling-price a distinct advantage; other two tell how much good P.A.T.A. protection has done to them; and other replies are *pro* and *con*, one writer saying :—

To a great extent misunderstanding exists in imagination only, and would be non-existent if it were not for paid agitators of an irresponsible association. As strikes are caused by agitators, so is this supposed bogey. If discord is existing, it is caused exclusively by the cut-throat policy of the small and "nothing-at-stake" retailer aping big trade at reckless prices.

This quotation admirably expresses the sentiment of those proprietors who care not a straw for the handlers of their goods, and whose sole desire appears to consist in securing all the profit to themselves. The opinions are continued in the April issue. Retailers' opinions are well epitomised in the first extract. There is much in both of the issues in regard to substitution, including a page of reproductions from Messrs. Lorimer & Co.'s price-list distributed through our Winter Issue, and an anti-substitution advertisement by Messrs. A. & F. Pears (Limited).

The First Chemical Laboratory.

It is claimed that the Pharmaceutical Society's laboratory at Bloomsbury Square, W.C., was the first in this country open to the public. It was established in 1844, and Dr. B. H. Paul has corroborated (*C. & D.*, December 27, 1902, page 1046) the statement to the foregoing effect. Sir William Rimsay has mentioned earlier laboratories, and through the courtesy of a university professor we are able to reproduce an advertisement from an Edinburgh newspaper of 1833 which disestablishes the claim made for the Square laboratory :—

LECTURES.

THEORY AND PRACTICE OF CHEMISTRY.

DR. D. B. REID'S WINTER LECTURES commence on WEDNESDAY the SIXTH NOVEMBER, at Ten o'clock. Ticket £3. 5s.

The PRACTICAL COURSES commence on the same day at Eleven, One, and Three o'clock. The INTRODUCTORY LECTURE to the Practical Courses will be given on the Evening of Wednesday, at 8 o'clock.

Gentlemen attending Dr D. B. Reid's Classes have access to the Rooms daily for the Examination of Specimens, and for studying them under Dr R.'s superintendence.

EXTENDED COURSES of PRACTICAL INSTRUCTION, in which the student can operate for several hours daily, are arranged according to the professional views of the individual pupils.

Further information may be obtained by applying at Dr Reid's Class-Room, between 10 and 4 o'clock.

Edinburgh, Oct. 18, 1833.—9, ROXBURGH PLACE.

LECTURES ON NATURAL HISTORY.

Dr. D. B. Reid was a well-known chemist in his day, but we believe Dr. Thomas Thomson was before him in teaching chemistry by analytical methods carried out by the students themselves.

Dangers of Hypnotics.

At a recent meeting of the Therapeutic Society, Professor Nestor Tirard, M.D., read a paper on this subject in which he dealt with sulphonal, paraldehyde, chloral hydrate, opium preparations, and cannabis indica, giving examples of dangers and fatalities which have arisen through the indiscriminate or injudicious use of these hypnotics. In summing up the matter he said :—

Perhaps the greatest danger of all is incurred when the patient is given a prescription for a hypnotic, and this danger has certain analogies with the medicinal employment of alcohol. Many of us believe that at the height of fever or in conditions of collapse alcohol is often necessary, but it is never recommended to our patients for indefinite use, still less for increasing doses. Armed with a prescription for a hypnotic, patients commonly go on taking the drug long after the relief of the special circumstances for which it was prescribed, and the prescription may be used to facilitate the acquisition of large quantities of a dangerous drug obtained, perhaps, at several establishments in small amounts.

Notwithstanding the relief which many have derived from the use of hypnotics, I am in favour of any step which tends to prevent their administration except by the medical man or under his immediate directions. I have seen so much of the dangers of hypnotics that I would prohibit their sale to the public, or would allow them only to be dispensed to a freshly dated prescription, which should be retained by the druggist or returned to the prescriber.

Many pharmacists will sympathise with these opinions, for although the abuse of hypnotics is confined to a comparatively small proportion of the community, individual cases are frequently most distressing.

The Medical and Dental Registers.

There are 37,232 names on the 1903 edition of the Medical Register (Spottiswoode & Co., Limited, 6s.), which is an increase of 320 on the number on the previous register. The removals under Section XIV. of the Medical Act, which are usually more thorough every five years, have been 345, whilst the number of deaths has been 700—a larger number than ever before, with the exception of the year 1885, when the deaths were 711. The names added have been 1,275, or about the average of the last twenty-seven years. The list of registered persons, from Aaron to Zuill, occupies

1,600 pages, and does not lend itself to editorial comments; but we note that the Colonial List has expanded by one page, and that the Foreign List now has five doctors, all with Italian degrees, in place of one only on last year's register. The Dentists Register (Spottiswoode & Co., Limited, 3s. 4d.), on the other hand, contains the same number of dentists on its Colonial List and one more on the Foreign List, with the usual shrinkage in the number (4,590, against 4,615) of dentists registered by reason of having been in practice at the passing of the Act. The number of licentiates has increased from 2,009 to 2,106, thus maintaining the steady increase in this section which was anticipated. Both registers are valuable works of reference in the pharmacy, and, placed where customers can consult them, may be of use to the public, who are always interested in knowing what qualifications their medical man or dentist possesses.

Fluorescence.

Our Paris correspondent mentions that a tribute has been paid by the Academy of Sciences to the late Sir George Stokes. In this connection we may recall a high appreciation of the Cambridge *savant* contributed to *Nature* by Lord Kelvin, who says: "The greatest and most important of all Stokes's optical papers was communicated to the Royal Society on May 27, 1852, under the title, 'On the Change of the Refrangibility of Light.' In this paper, his now well-known discovery of fluorescence is described, according to which a fluorescent substance emits in all directions from the course through it, of a beam of homogeneous light. The periods of analysed constituents of this fluorescent light, in all Stokes's experiments, were found to be longer than the period of the exciting incident light. But I believe fluorescent light of shorter periods than the exciting light has been discovered in later times. Stokes found that the fluorescence vanished very quickly after cessation of the incident light. A beautiful supplement to his investigation was made by Edmond Becquerel showing a persistence of the fluorescent light for short times, to be measured in thousandths of a second, after the cessation of the exciting light. Stokes's fundamental discovery of fluorescence is manifestly of the deepest significance in respect to the dynamics of waves, and of intermolecular vibrations of ether excited by waves, and causing fresh trains of waves to travel through the fluorescent substance."

Doctors and their Fees.

The Blackburn Board of Guardians is indignant because a local doctor has charged the Board for vaccinating himself. This is a record; but we are not disposed to lay the calamity at the door of the medical profession. In whatever walk of life that person happened to be engaged, he would have found equally clever means of raising the wind. In connection with doctors' fees we notice a case in the East-end where a doctor refused to attend a child in the middle of the night unless he got his 3s. 6d. The mother fetched the money, but the doctor's attendance did not save the child's life. It died of convulsions. Why an inquest was necessary did not transpire, but it would doubtless give the doctor the statutory fee for his evidence. A jurymen was somewhat indignant at the doctor for refusing to attend the dying child until he got the 3s. 6d.; whereupon the Deputy-Coroner (G. E. Yarrow, L.S.A., L.R.C.P., M.D. Heidel.) said:—

There is no law to compel a medical man to attend without being paid for his services, any more than you can ask a baker or a butcher for his goods free. Many young practitioners go in answer to every call in the hope that it will bring grist to the mill, but they alter as they get older. A doctor answering a person through the tube cannot judge as to the respectability of the caller, and sometimes it acts rather hardly, as in this case, when the doctor refuses to attend before being paid. But there is something to be said for the doctor. I have been through the

mill and know. Every holiday-time medical men get called out by persons with a tale that somebody has poisoned himself. The doctor attends, finds that nothing but a drunken brawl has occurred, and gets nothing for his trouble.

There is some gratification in the reflection that all doctors do not act on these principles, otherwise the profession as a whole would not merit the title of nobility sometimes applied to it.

Medical Gleanings.

PODOPHYLLUM-POISONING.

The Medical Times relates a case of mandrake-poisoning in the United States. A lady was given a dose of what was supposed to be liquorice powder, but was subsequently found to be mandrake. Vomiting and purging followed, with chilly sensations. A physician was called, who ordered a small amount of bromide of soda, bicarbonate of soda, and syrup of ginger, of which prescription the patient took three doses. She then appeared to be resting quietly, was drowsy and hard to rouse, but seemed to be doing well. She slept through the night, in the morning could not be awakened, and died at 8 o'clock. *The Medical Times* is under the impression that the mandrake referred to is the European kind, whereas it is podophyllum which is known in U.S.A. as mandrake.

SKIN-VARNISH.

used by surgeons to coat the fingers so as to minimise the transference of disease-germs. The varnish is removed after completing the examination of the patient.

Copal	...	...	...	...	2 parts
Venice turpentine	...	...	...	...	4 parts
Ether	...	...	...	...	100 parts
Collodion	...	...	...	...	100 parts
Acetone	...	...	...	...	8 parts

—*British Medical Journal*.

OBESEITY.

To persons suffering from obesity, with accumulation of fat in the lumbar and abdominal regions, M. Kirsch, besides the usual diet-treatment, recommends local friction with the following ointment:—

Potassium iodide	...	...	...	...	5 <i>j.</i>
Iodine	...	...	...	...	gr. vi.
Vaseline	...	...	...	...	5 <i>j.</i>

To be rubbed in night and morning over the lumbar region, and the parts covered with a large compress steeped in a solution of acetate of aluminium made as follows:—

Lead acetate	...	...	...	...	5 <i>j.</i>
Alum	...	...	...	...	3 <i>ss.</i>
Water	...	...	...	...	3 <i>viij.</i>

A sheet of oil-silk or other impermeable tissue is to be placed outside the compress.

For friction of the abdominal walls M. Kirsch replaces the ointment by—

Vinegar of squills	...	...	...	...	3 <i>viij.</i>
Potassium iodide	...	...	...	...	3 <i>j.</i>

—*Medical Press*.

SULPHURETTED-HYDROGEN POISONING.

DR. THOMAS OLIVÉR, in a paper in the *Lancet* on "Fatalities to Workmen Caused by Breathing Sulphuretted Hydrogen," says that sulphuretted hydrogen causes death by its effect upon the respiratory centre. Some experiments on dogs proved that 0·15 per cent. of the gas in the atmosphere was enough to cause distress and unconsciousness. In all circumstances the odour of sulphuretted hydrogen should be regarded as a danger-signal. It is a fairly heavy gas; it has a density of 16·99, and is likely to lie low at the bottom of an excavation or confined space. Before allowing men to work in confined spaces where there is a suspicion of sulphuretted hydrogen the plan might be adopted of testing the air by means of a piece of filter-paper soaked in lead or silver solution. A cylinder of oxygen should be at hand, and in cases of apparent death from breathing the gas artificial re-piration should be adopted at once in the open air, warmth applied externally, and stimulants with strichnine carefully administered.

Some Government Formulas.

ONE naturally expects everything possessed by the British Government to be the best procurable. The following formulas, as used in the different naval hospitals, generally come up to this expectation. They are simple, effective, and inexpensive, and will be found useful in hospital and shop alike:—

MIST. ACID. TONIC.

Acid. nit. hyd. dil.	... m <i>xj.</i>
Tr. gent. co.	... 3 <i>j.</i>
Syr. aurant.	... 3 <i>j.</i>
Aq. ad	... 3 <i>j.</i>

M.

MIST. ALKALINA.

Pot. nit.	... gr. v.
Pot. bicarb.	... gr. xx.
Tr. aurant.	... m <i>x.</i>
Aq. ad	... 3 <i>j.</i>

M.

MIST. BISMUTH. RUB.

Liq. bismuth. B.P.	... m <i>XL.</i>
Spt. chloroform.	... m <i>X.</i>
Tr. nucis vom.	... m <i>iiiss.</i>
Acid. hydrocyan. dil.	... m <i>1 1/4</i>
Tr. coc. eact.	... q.s.
Liq. morph. hyd.	... m <i>vj.</i>
Aq. ad	... 3 <i>j.</i>

M.

MIST. DIARRHŒA.

Tr. opii	... m <i>x.</i>
Tr. zingib.	... m <i>x.</i>
Tr. catechu	... m <i>xx.</i>
Tr. cinnam.	... m <i>xx.</i>
Mist. cret. al	... 3 <i>j.</i>

M.

MIST. DIURETIC.

Pot. acet.	... gr. xx.
Acet. scille	... m <i>xx.</i>
Spt. aeth. nit.	... m <i>xx.</i>
Dec. scopar. ad	... 3 <i>j.</i>

M.

MIST. PECTORAL.

Vin. ipecac.	... m <i>v.</i>
Vin. antimon.	... m <i>v.</i>
Liq. morph. hyd.	... m <i>v.</i>
Oxymel.	... m <i>v.</i>
Syr. scille	... m <i>xx.</i>
Tr. card. co.	... m <i>xx.</i>
Aq. ad	... 3 <i>j.</i>

M.

MIST. RHEI AMMON.

P. rhei	... gr. iv.
Ammon. carb.	... gr. ij.
Inf. quass.	... 3 <i>ss.</i>
Aq. menth. pip.	... 3 <i>ss.</i>

M.

MIST. SODÆ ET GENT.

Sod. bicarb.	... gr. x.
Tr. card. co.	... m <i>xx.</i>
Inf. gent. ad	... 3 <i>j.</i>

M.

MIST. SODÆ ET RHEI.

Sod. bicarb.	... gr. x.
P. rhei	... gr. x.
Spt. ammon. arom.	... m <i>xx.</i>
Aq. ad	... 3 <i>j.</i>

M.

We cannot conceive what good could accrue from legalising a class of unqualified traders in poisons, such as the village grocer, ironmonger, or general store dealer; on the contrary, such a course could only be fraught with serious danger to the community. The main safety of the public undoubtedly lies in the entire restriction of the sale of all poisonous substances to duly qualified persons, and it is to be hoped that when the Legislature comes to deal with any amendment of the Pharmacy Act this course will be strictly adhered to, and that the regulations for the sale of poisons will be increased in stringency instead of being relaxed.—*The Hospital.*

MIST. SENEGÆ ("STOKES'S").

Ammon. carb.	... gr. iv.
Spt. aeth.	... m <i>xj.</i>
Tr. camph. co.	... m <i>xxij.</i>
Tr. scille	... m <i>xv.</i>
Syr. simp.	... 3 <i>ss.</i>
Decoct. seneg. ad	... 3 <i>j.</i>

M.

MIST. SENEGÆ (ORDINARY).

Ammon. carb.	... gr. v.
Spt. chlorof.	... m <i>x.</i>
Syr. simp.	... 3 <i>ss.</i>
Decoct. seneg. ad	... 3 <i>j.</i>

M.

MIST. MOSCHI.

(*"Nil Desperandum."*)

Spt. amm. arom.	... 3 <i>ss.</i>
Spt. aeth. nit.	... 3 <i>j.</i>
Spt. aeth.	... 3 <i>ss.</i>
Tr. moschi	... 3 <i>j.</i>
Tr. lavand. co.	... 3 <i>j.</i>
Syr. aurant.	... 3 <i>ss.</i>
Aq. camph. ad	... 3 <i>viij.</i>

M.

MIST. OL. TEREBINTH.

Ol. terebinth.	... m <i>xv.</i>
Tr. card. co.	... 3 <i>j.</i>
Vitel. ov.	... q.s.
Muc. acac.	... 3 <i>j.</i>
Aq. menth. pip. ad	... 3 <i>j.</i>

M.

LINCT. CHLORODYNI.

Tr. opii	... 3 <i>j.</i>
Chlorodyn. "85"	... 3 <i>j.</i>
Acid. sulph. dil.	... 3 <i>j.</i>
Oxy. scille	... 3 <i>j.</i>

M.

LINCT. TOLU.

Liq. morph. acet.	... m <i>xxiv.</i>
Oxy. scille	... 3 <i>jij.</i>
Syr. tolu	... 3 <i>v.</i>

M.

INJECTIONS.

Injections are largely used, the following especially:—

Inject. Cupri Sulph. Co.

Alum. sulph.	... gr. x.
Ferri sulph.	... gr. x.
Cupri sulph.	... gr. x.
Zinci sulph.	... gr. x.
Aq. ad	... 3 <i>xx.</i>

S. et M.

Inject. Eucalypt.

Ol. eucalypt.	... 3 <i>ss.</i>
Mucil. acac.	... 3 <i>jij.</i>
Aq. ad	... 3 <i>viij.</i>

M.

Inject. Iodoform. Co.

Iodoform	... 3 <i>ijj.</i>
Bismuth. subnit.	... 3 <i>ijj.</i>
Zinci sulph.	... 3 <i>j.</i>
Plumb. acet.	... 3 <i>j.</i>
Glycerin	... 3 <i>j.</i>
Aq. ad	... 3 <i>xx.</i>

M.

Inject. Plumb. Co.

Liq. plumbi subacet.	... m <i>xvij.</i>
Zinci acet.	... gr. xx.
Morph. acet.	... gr. j.
Tr. catechu	... m <i>xxiv.</i>
Aq. ad	... 3 <i>viij.</i>

M.

LOTIONS.

Two favourite lotions are—

Lotio Acid. Carbolic.

Acid. carbolic.	... 3 <i>v.</i>
Acid. acetic. dil.	... 3 <i>vij.</i>
Camphor	... gr. XL
Spt. vin. rect.	... 3 <i>iiiss.</i>
Aq. ad	... 3 <i>XL.</i>

M.

Lotio Calamin.

Calamin	... 3 <i>ss.</i>
Zinci ox.	... gr. 20
Acid. boric.	... gr. j.
Glycerin	... 3 <i>ss.</i>
Aq. ad	... 3 <i>j.</i>

M.

OINTMENTS.

Formulas for three of the principal ointments will suffice.

Ung. Bals. Peruv.

Bals. peruv.	... 3 <i>ij.</i>
Cera alb.	... 3 <i>ij.</i>
Adipis	... 3 <i>ij.</i>
Ol. rosmarin.	g. t. x.

M.S.A.

Ung. Sulph. c. Hyd.

Sulph. sublim.	... gr. xxx.
Hyd. ammon.	... gr. v.
Creosot.	... m <i>v.</i>
Ol. olive	... 3 <i>ij.</i>
Adipis	... 3 <i>j.</i>

M.S.A.

Ung. Boric. Co.

Acid. boric.	... 3 <i>j.</i>
Cer. alb.	... 3 <i>ij.</i>
Ol. amygd. dulc.	... 3 <i>ij.</i>
Vaseline	... 3 <i>ij.</i>

M.S.A.

CRAMP-RINGS are an association with Good Friday, being worn as a preventive against cramp or "falling sickness." Their origin dates back to the reign of Edward the Confessor. He was presented with one by a pilgrim, and after the King's death the ring was preserved in Westminster Abbey. Lord Berners wrote to Cardinal Wolsey, "If your Grace remember me with some cramp-rings ye shall doo a thing muche looked for; and I trust to bestow them well with Godde's grace." In a jeweller's shop in the centre of Birmingham these rings are still procurable and are said to possess potency in checking rheumatism. Many are sold in some chemists' shops, notably one in the Rows at Chester.

Diary Criticisms.

C. & D. DIARY is a real good thing, Best thing for chemist the postman can bring ; Revenue-stamp Law, quite up-to-date, So please get the DIARY before you're too late ; Send your subscription, obtain *C. & D.*, For it's simply worth loads of £ s. d.

JAMES A. OAKES.

The advertisements of THE CHEMISTS' AND DRUGGISTS' DIARY to the chemist's eye are like a magnet to a needle—attract and retain.—H. R. MANNING.

"Don't wait till customers turn their backs on your shop because it's unattractive." (Philip Josephs & Son, page 121.) —T. UNSWORTH.

The past presents the future free,
While daisy profits £ s. d.
A moment's reflection will always repay,
While Daisy, Limited (Leeds) the way.

R. E. LEWIS.

Your article on the Medicine-stamp Acts and specimen labels, liable and non-liable to Stamp-duty, are most valuable and up-to-date.—J. SANKEY.

The price-list of Wellcome's is welcome indeed,
The formulas appeal to my love of greed ;
To judge a good thing some consider me able,
So I appreciate most the non-liable label.

THOMAS ALEXANDER.

"Chemists who value their own reputations should never be thoughtless enough to sell an imitation. The way of the imitator is hard, he can never be sure when he gets there."—K. E. McCAGI.

Hurrah ! said Smith, as he danced with glee,
I'm glad I subscribed to the *C. & D.*,
Oh, what makes others so chary ?
I find not liable my foot-powder label,
Some shillings per week to save I'm now able,
Thanks to the *C. & D.* DIARY.

ALFRED BUTTERWORTH.

The 1903 DIARY is the "Ne plus ultra" of diaries.—C. THURLAND.

THE CHEMISTS' AND DRUGGISTS' DIARY, 1903, FOL. 6— "Success v. Failure. The chemist of to-day must, if he will succeed in business, 'move with the times,' or be 'left behind in the race,' and this he knows either by experience or observation." As a chemist's wife I endorse the above.—(Mrs.) A. F. HIGGS.

Page 645 is the most pleasantly neat of all.—LENNOX TICE.

On page 499: "Glad to see old John Bull is getting more partial to temperance principles." Comment :—I notice, that, like our musicians, your advertisers are partial to the antique.—G. H. READIE.

Amongst a host of useful contents in this year's DIARY the article on "Eucalyptus and their Products" is, to my mind, one of the most useful and thought-producing ever published.—J. NUTTALL.

THE CHEMISTS' AND DRUGGISTS' DIARY full well inquiry repays, With hints from many sages, to those who scan its pages ; It guides the buyer, and warns of mire, Supplies the student with his heart's desire ; While those who wish with goods to part Find through it a ready, quick, annual mart.

E. THORNTON.

Use discretion in buying. Give customers exactly what they want. Never turn a customer away if possible. Make the most of every opportunity.—C. BARNETT.

The Buyers' Guide, 209-224 and 201-204, is alone well worth 10s.—a most useful work of reference and a constant source of income to those whose goods and specialities are advertised therein. Moral : Advertise in THE CHEMISTS' AND DRUGGISTS' DIARY for 1904.—WALTON PORTER.

THE CHEMISTS' AND DRUGGISTS' DIARY is the *one* and *only* encyclopaedia of the trade.—G. PATEHOUSE.

The best diurnal directory for druggists.—R. J. LEIGH.

The article on trade-law is very useful, and it is hoped that some of the useless, frivolous, and absurd prosecutions under the Drug Adulteration Act will be reformed and more articles be placed on the P.A.T.A., so as to ensure living profits.—H. FRANCIS.

I regard the treatise on labels and specimens (pages 524-530) as the most useful and valuable part of the DIARY, and worth very careful study. The formulas for specialities (pages 293-294) are excellent, and such as can be put into everyday use.—C. CLAYTON.

Advertisements improve each year.—W. H. HURN.

In their feverish exultations,
In their triumph and their yearning,
In their passionate pulsations,
In their words among the nations,
The Promethean fire is burning.
Shall it, then be unavailing,
All this toil for human culture ?

E. H. BENTLEY.

The pages 523 to 534 inclusive in DIARY are worth the whole of the year's subscription to THE CHEMIST AND DRUGGIST.—H. A. MARTIN.

Facts Applied to the "Diary" from the Advertisement-headlines.—"Every chemist is interested" (page 494). "It is a recognised fact that it pays you" (page 364). It contains "points for chemists to remember" (page 101). "Superior to any others" (page 591). "It is always handy" (page 600).—ARTHUR E. BEESTON.

"You must think, if we give you anything,
We hope to gain by you."—Shakespeare.

W. F. SMITH.

Take it for all in all, we shall not look upon its like again.—W. D. DODD.

After having looked through the DIARY, both advertisements and literary matter, I am forced to exclaim, "Good things should be praised."—TOM BROWN.

THE YEAR'S PROGRESS.

"What cannot art and industry perform
When science plans the progress of their toil ?
(Beattie, "The Minstrel," ii., 54.)

ALFRED J. BARNES.

"It is always handy to have by you; cannot be beat, we know. The lines give satisfaction, facts are worth remembering, and your efforts are appreciated. The perfection in style, designed for inquirers." (Messrs. F. Schutze & Co.'s advt., p. 600).—WM. CROZIER.

Of proprietaries endless, too numerous to tell,
And daily "they come" the great horde to swell ;
For adverts. of things useful, don't go far in quest :
In the *C. & D.* DIARY you'll find all the best.

T. S. DUDGEN.

AWARDS.

In the home competition we award a half-guinea each to Mr. FRANK L. SIMMONDS (January 3, page 10) and Mr. J. E. BUSHL (January 17, page 101). We also divide half a sovereign between Mr. W. PATRICK and Mr. J. W. DENT for suggestions. These gentlemen will please claim the awards.

OLIVE OIL to the value of 75,433*l.* was imported into Alexandria during 19-1, against 57,813*l.* in 1900.

"I AM going to make a great hit with my next novel," said the golden-haired authoress, "and don't you forget it." "What's the plot?" "Oh, I don't really know yet, but there are to be four chapters devoted to the sufferings of the hero from appendicitis."

THE exports of gum acacia from Jeddah during 1901 amounted to 1,540 bags, valued at 2,510*l.*, against 1,246 bags, or 2,736*l.*, in 1900, and 935 bags, or 2,327*l.*, in 1899. The British Consul at Jeddah reports that although two kinds are found in the neighbourhood both are poor in quality, and prices have been falling for the last two years to such an extent that this product is scarce worth while collecting, its value being about 22*s.* per cwt.

Reviews.

Revue des médicaments nouveaux et de quelques médications nouvelles. Par C. CRINON. 10th edition (1903). 6½ x 4. Pp. 436. 4f. Rueff & Cie., 106 Boulevard Saint-Germain, Paris.

THIS well-known annual of new remedies has been brought up to date in the matter of recently introduced medicaments. We find, for instance, monographs on adrenalin, anesthesin, bismutrose, cypridol, ichthoform, lipobromol, rheumatine, ulmaren, and other new drugs. The therapeutics as well as the pharmacy of the preparations are dealt with.

Formulaire des médicaments nouveaux pour 1903. Par H. BOQUILLON-LIMOUSIN. 15th edition 6½ x 4. Pp. 320. 3f. J. B. Bailliére et fils, 19 rue Hautefeuille, Paris.

EACH of the new remedies specified in this formulary is systematically dealt with under the headings synonyms, description, composition, therapeutics, mode of using, and dose, the descriptions being as concise as possible. Many drugs have been added in this edition which did not appear in the last published book, whilst the notes on older drugs have been revised in many cases. Here can be found information on eprosin, histogenol, purgative vioiforme, and other fancy drugs which a prescription-chemist may be called upon any time to dispense.

Golden Rules of Refraction. By ERNEST E. MADDON, M.D. 4 x 2½. Pp. 86. 1s. J. Wright & Co., Bristol.

THIS is a capital résumé of the subject of sight-testing. Being written primarily for medical men, the use of homatropine in the examination of the eyes is treated as being almost essential in many cases, and frame-fitting is but lightly touched upon. Every variety of test for defective vision is mentioned, and it is wonderful what a lot of information has been crammed into such a small book. Dr. Maddon speaks highly of Jackson's crossed cylinders in testing for astigmatism, which he predicts will be universally used as soon as they are better known.

Second Treatise on the Effects of Borax and Boric Acid on the Human System. With two supplements. By Dr. OSCAR LIEBREICH. 10½ x 7½. Pp. 85. 5 plates. 2s. 6d. J. & A. Churchill, 7 Great Marlborough Street, W.

IN a treatise on the effects of boric acid and borax on the system which Dr. Liebreich published in 1899, it was proved that these substances were not only non-poisonous, but did not exert any harmful influence on the digestive ferments or the epithelium of the digestive tract. Since then statements have been made which tend to throw discredit on the validity of the views expressed three years ago, and the purpose of the present treatise is to refute these as erroneous or founded on insufficient observations. To our mind Dr. Liebreich proves his case, and makes short work of the scientists who, from one or two casual experiments, prove to their own satisfaction that borax and boric acid are dangerous to human food, and should not be used as food-preservatives.

Refraction: A Simple and Concise Treatise on Practical Sight-testing. By GUY E. DRUIFF. 135 illus. 10 x 6½. Pp. 300. 10s. 6d. Anglo-American Optical Company, 47 Hatton Garden, E.C.

WITHIN the last few years an increasing number of chemists have taken up sight-testing as a side-line to pharmacy, but it has been difficult to recommend to beginners a good practical book on the subject. Recently, however, we have noted the publication of several works on refraction from the pens of practical men, Mr. Druiff's book being the newest. The author first treats of the anatomy and physiology of the eyes, then of the laws of refraction and various kinds of lenses, and, lastly, the defects of the eye and their correction. The chapters on neutralising and transposing are essentially the work of a practical man, and are very useful in making the chemist-optician familiar with the considerations which affect the choice of spectacle-lenses. The adaptation of frames—one of the most difficult parts of the subject—is well dealt with in another chapter. Twenty-

four actual cases are quoted, in which the method of testing and the reasons for supplying the particular correction are given; these form a most useful feature for self-taught refractionists. The author fully describes what he calls the "paralysing" method of testing for hyperopia without using cyclophlegics. We agree that the risk of using drugs in eye-testing is considerable, and in most cases unnecessary. Having carefully read the book, we have every confidence in recommending it to chemists requiring a practical work on spectacle-fitting.

Pharmaceutical Society of Great Britain.

APRIL EXAMINATIONS.

WE have received from the Registrar the following list of candidates who were granted certificates at the recent

MINOR EXAMINATION HELD IN EDINBURGH, when 152 candidates were examined, of whom 98 failed and 54 passed, viz :—

Barclay, J. W., Dunfermline	Masterton, W. D., Coatbridge
Birtle, G., Newcastle-on-Tyne	Milne, Thomas, Old Meldrum
Biggarn, John W., Whitehaven	Ogilvie, William, Peebles
Bird, Albert Edward, Rugby	Raffan, John, Rothiemay
Blaydes, H. Ingram, Leicester	Rankine, A. L., Gardenden
Bryce, Adam Whitford, Lanark	Reid, A. Smith, South Shields
Chisholm, C. H. S., Glasgow	Russell, J. Reddie, Edinburgh
Craig, Edwin Forbes, Aberdeen	Sanderson, J. R., Whitley Bay
England, Thomas A., Sheffield	Shand, Adam L. W., Aberdeen
Fenton, Peter, Coatbridge	Stewart, Adam, London
Findlay, A. Tam, Udny, N.B.	Strickland, H. C., Brandsby
Fraser, W., Conon Bridge, N.B.	Sutherland, A. J., Aberdeen
Frew, Williamson, Dingwall	Sutherland, J. D., Arbroath
Guthrie, Robert, Glasgow	Taylor, Alexander, Glasgow
Hodge, W. H., Wolverhampton	Thirde, J. Ingram, Edinburgh
Hughes, J. G., Southampton	Thom, William B. P., Glasgow
Hutcheson, Robert, Inverness	Thompson, H. G., Blackburn
James, William Dodge, Leeds	Waldron, James Joseph, Newcastle-on-Tyne
Johnson, John Albert, Lincoln	Walker, James, Glasgow
Kearney, William John, Dunns	Walton, John Borrows, Birtley
Kendall, John W., Sunderland	Watts, Albert Arthur, Shefield
Kinnis, William Duican, Newcastle-on-Tyne	Webster, R. Robson, Edinburgh
Leslie, William, Falkirk	Webster, Magnus Herd, Buckie
Love, W. Landels, Kirkcaldy	Welch, James, Edinburgh
MacGregor, Alexander, Leith	Weston, Matthew Frank, Newcastle-on-Tyne
MacPhail, John, Newcastle-on-Tyne	Willis, Ernest, South Shields
Marshall, F. W., Gateshead	Wilson, William, Ossett

Four Major candidates were examined; all failed.

MAJOR EXAMINATION IN LONDON.

The following candidates have passed :—

Baker, Charles Ballard, London	Maw, Arthur Trentham, London
Cart, John Trevor, London	Pine, George Centenary, London
Collitt, Bernard, London	Pratt, John Edward, London
Hirst, Alfred Norman, London	Renouf, Nora, Jersey
Kirkland, Arthur, London	Sambrook, John T., London
Knappe, Henry, Burnley	Stooke, F. A., New Brompton
Lewis, George Walter, London	Walmsley, Stephen Elliott, Kingston-on-Thames
Llewelyn, Thomas, London	Lyall, David Watson, London
Lyall, David Watson, London	Wickham, Thos. Beale Collings, London
Mann, Ernest W., Birmingham	

NORTH BRITISH BRANCH.

THE Executive held a meeting at 36 York Place, Edinburgh, on Thursday forenoon, April 16. A considerable portion of the business was taken in private. It appeared that the Senatus of Aberdeen University was the only one which approved entirely of the scheme for the pharmaceutical science degree, the others having objections which it was expected would be easily overcome. Mr. MABEN proposed his resolution asking the Council to consider the advisability of conducting a Preliminary examination for its own candidates; but the discussion was adjourned.

Thereafter the day scientific meeting of the Branch was held, at which there was a good attendance. Interesting discussions followed the papers. After luncheon a private conference took place on the Pharmacy Acts Amendment Bill, which was opened by Mr. DAVID STORRAR, and at which there was an exhaustive discussion on the matter.

At a Grocers' Exhibition.

A Chemist and Druggist's Impressions.

ALTHOUGH somewhat apart from the ordinary drug business, a grocers' exhibition is worthy of our interest. I find in my own business—which is not of a high class—so much that touches the grocer's, and in the grocer's so much that touches mine, that we may well be interested in each other. Our greatest and bitterest opponents are in many particulars the grocers. They are the cutters. They can buy largely and make a good window-display. They have got the bulk of the trade in not a few of what were once our lines, such as sponges, soaps, mineral and aërated waters, heavy drugs, and patent foods. I find also that they send out travellers to most of my customers, and offer to them the bulk of the things I deal in. And, on the other hand, I get asked for a lot of things introduced and sold by them, and thus we may be said to occupy common ground.

At the recent grocery exhibition at Manchester the exhibits did not, to my mind, do anything like justice to the grocery business. Pure grocery was too little in evidence. I suppose the grocer, like the chemist, is getting more and more to be a distributor of other people's wares. So many things are now put up in packets or tins. Why does not the grocer make a point of selling his own staple articles, and take the responsibility of guaranteeing his own goods? A grocer friend of mine tells me that his trade successfully resisted the effort recently made by a large sugar firm to introduce their sugars in 1-lb., 2-lb., and such-like packages, observing the intention to notorise the firm's name at the cost of the retailer. And I think we druggists do far too much of this, although I avoid it as much as I can in my own shop. My pills are my own pills. I buy the ingredients separately—aloes, rhubarb, myrrh, and what-not; and each drug I examine separately for quality. But I am old-fashioned.

Prizes were offered for window-dressing. Messrs. Parnell had fitted up two windows, which were used by the competitors, and the different exhibits in the show were brought into use. These dressings seemed popular, if I may judge by the numbers watching them; but I thought they were exhibitions not of grocery, but of brilliantly coloured and attractive dummies of starch, soap, foods, and tins of all descriptions.

All together there was, as I have intimated, an absence of what I may call crude grocery. I only saw one pile, very unobtrusively shown, of old-fashioned pale yellow soap in bars. "Tallow," said my friend. "Cocoa-nut oil," said I. No exhibits of fruits other than bottled, no butter, butterine, cheese, or bacon. "Oxo," at 1d. per cup, was popular. One firm had a fine show of cocoa in all its forms, from the crude bean to the finished article, and this was very interesting. Two firms of sugar-refiners also had a most instructive exhibit of every class of sugar-products, many of which are not usually seen, being used by a particular class of manufacturer. One representative assured us that nothing but cane is used in any of their articles—neither glucose nor beet is employed. This is desirable, as many grocers have been prosecuted for selling syrups let down with glucose. Packed oats, wheats, &c., are, of course, much displayed; they are popular just now, and the grocer is thus treading hard on the toes of the baker. Berry's Blacking had an excellent display of bottled and tinned polishes of all kinds, which are being introduced well amongst chemists. A special feature of these exhibitions is the good music (discussed in this case by the Coldstream Guards), and the facilities for smoking.

Altogether, I think I got good value for my 6d.

(251/17.)

STATHAM'S CHEMICAL-CHESTS.—Messrs. Statham have now pasted over the page of the instruction-books where detonating experiments were detailed the following note in red type: "We desire to caution purchasers of this book and our chemical-cabinets not to perform the experiments on detonation, Nos. 98, 99, &c., as we have been informed it is illegal to manufacture explosives on however small a scale. *Vide Order in Council No. 15.*"

East Indian News.

THE Medical Storekeeper, Madras, has been authorised to purchase locally some 10,000 lbs. of hydrochloric acid required for plague-purposes.

Poisoning.—Miss Donna Humphrey, a nurse at the Sanatorium in Park Street, Calcutta, committed suicide on March 4, by drinking a quantity of perchloride-of-mercury solution. Miss Humphrey had been suffering from mental depression.

SITTALCOHOL.—The flesh of the sittal-leaf, which forms 95 per cent. of the leaf, contains a liquid strongly impregnated with carbonates of lime and magnesium and 6 or 7 per cent. of potassium salts. It is thus a valuable fertiliser, and it is suggested that, as it readily ferments, it might form a valuable source of alcohol and acetic acid.

WILL IT PAY?—The indigenous drugs of India have attracted the attention of an American firm, who are said to be seriously meditating the establishment of a factory in India. That India boasts an enormous number of plants used by the natives in medicine, no one disputes, but that these can be turned into commercial money-making assets is a moot question.

MODEST REQUIREMENTS.—The Municipality of Bombay are inviting applications for the appointment of analyst for the Municipal Laboratory. The salary is 300r. per mensem (20%). The person approved will be required to devote his whole time to the duties of his office. The applicant should possess some medical qualification, and must be able to undertake analyses of foods, drugs, water, disinfectants, and so forth.

MADRAS HONEY AND WAX.—Among the various items of minor forest-produce, by no means least important of those collected in the Coimbatore district of Madras are honey and wax, of which there are three sorts found in different places, and made by different kinds of bees. These are (1) rock honey, made by very large bees, and found in holes and under ledges of rocks—this honey is coarse and dark, and the wax dark coloured and large-celled; (2) honey made by smaller bees, and found in hollows of the rotten trees; and (3) honey made by very small bees, and found on the branches of trees—this is the best honey, and resembles English. The honey is gathered from August to November by parties of ten to fifteen men.

WELL ESTEEMED.—Mr. R. Robertson, chemist and druggist, manager of the Poona branch of Messrs. Treacher & Co., Bombay, who is leaving India, was on March 15 presented with a silver tea-service and a pair of silver-backed brushes by the members of No. 3 Company of the Bombay Volunteer Artillery, of which he has been Quartermaster-Sergeant since its start at Poona three years ago. A smoking-concert was arranged for the occasion at the Roughton Club, where a large number of members and their friends assembled for the purpose of wishing Mr. Robertson "God speed." Major Walker, R.A., Commandant of No. 3 Company, made the presentation, and in doing so assured Mr. and Mrs. Robertson of the high appreciation in which they were held by the members of the corps, and wished them health and happiness in the Old Country. A gathering of the personal friends of Mr. and Mrs. Robertson took place in the Eoottee Hall, Poona, a few days before, at which Mr. Robertson was presented with a chased silver claret-jug, and Mrs. Robertson was given a diamond ring. Mr. and Mrs. Robertson will take a short holiday on the Continent before settling down in the Old Country.

ANOTHER PRICE-SCHEDULE.—A new schedule of prices for proprietary and patent medicines took effect in Boston, U.S.A., on March 25. It is the outcome of an agreement between members of the various associations in the city, and it has been agreed to adopt a new scale of prices on goods on which, in the past, there has been much general cutting. The list includes about seventy-five of the best-known articles, and minimum prices have been determined on; the maximum prices are to be whatever each druggist can get. Many well-known cutters have joined in.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Indian Podophyllin.

SIR,—The communication read by Mr. D. B. Dott to the North British Branch of the Pharmaceutical Society, and reported in your columns (March 28), contains several statements which are likely to give an erroneous impression regarding the therapeutical value of Indian podophyllin obtainable from the rhizome of *Podophyllum Emodi*. The assertion that the resin furnished by the Indian plant "was at first said to be equally active if not more so than the resin of *Podophyllum peltatum*, but later experience has not confirmed that opinion" is at variance with the results of recent investigations on this subject, especially those described by Dr. Mackenzie (*Edinburgh Medical Journal*, November, 1898), which demonstrates the greater activity of the Indian product. The difference in behaviour of the two resins towards ammonia-solution, described by Mr. Dott, is due to the fact that the Indian resin contains from $1\frac{1}{2}$ to three times as much podophyllotoxin as the American resin. When a small portion of podophyllin from either source is added to ammonia-solution it passes almost entirely into solution, but in the case of the Indian resin flocks of picropodophyllin are precipitated after a few minutes owing to the formation of this isomeride from the podophyllotoxin contained in the resin. Precisely the same change occurs with the American podophyllin, but the amount of podophyllotoxin contained in it is comparatively small and consequently the slight amount of picropodophyllin formed remains in solution. It is quite easy, however, to obtain precisely the same gelatinous precipitate of picropodophyllin from the American resin by using it in larger quantities. This explanation should satisfy Mr. Dott that picropodophyllin "may exist in the same form" (whatever this may mean, since neither resin naturally contains picropodophyllin) in both resins.

Yours faithfully,
THOS. A. HENRY.

Scientific and Technical Department,
Imperial Institute, S.W., April 8.

Citronella Oil.

SIR,—Our experiences as exporters of citronella oil from Ceylon may possibly prove of interest in view of the discussions and articles appearing in your journal on the adulteration of this export.

The prevention of excessive or, in fact, any adulteration rests mainly in the hands of the home importers, who would obtain a very fair oil if they would pay a fair price, but who, availing themselves of the cutting competition which was started a few years ago, so reduced the price of the oil that it has been an open secret for some time past that the distillers were unable to produce it at a profit to themselves except they resorted to adulteration. This policy of cut-throat competition will exist as long as home buyers are content with Schimmel's test, which, according to our experience, admits of an adulteration of about 15 per cent. of petroleum. His Excellency Sir West Ridgeway, in his recent speech at the opening of the present sitting of the Legislative Council, referred to the subject of the increasing adulteration of this Ceylon export and the consequent discredit which was coming over the trade. We immediately inquired of the Director of the Botanical Gardens as to the steps Government contemplated taking, and were informed that they proposed to plant up an acreage with the grass in order to demonstrate to the distillers that a better oil could be produced. We suggested that Government should rather cause every shipment exported to be analysed by the Government analyst; buyers could then obtain an analysis of the shipment before accepting it, and it would ultimately result

in exporters being compelled to send such certificates with each shipment. Winter's oil, which, we notice, has formed the subject of one of the experiments mentioned, has always been exported by us as their agents. It is obtained from a grass imported years ago into the island by Mr. Winter, and is not identical with that cultivated by the natives; in fact, it is only grown on his estates, and its distillation is supervised by a European manager, so that there is no question about its purity.

Our experience having shown us that Schimmel's test was unreliable, we worked out and adopted a test of our own, which gives, in our opinion, very satisfactory results, and for the disclosure of which we have had at least one offer. We have for many years in consequence been compelled to pay a higher rate for oil satisfying our test than we should have had to pay had we adopted the milder standard of purity, and, being adverse to shipping oil which would not pass our standard, we lost ground in the trade in proportion as the adulteration and the consequent difficulty in obtaining pure oil increased. In truth, the quality had fallen off to such an extent that during the past three years we have exported but a quarter of the quantity yearly than we had done during the previous six years.

The test we employ is distinctly a practical one, and we have always obtained good results from it, though we would by no means claim that it is better or surpasses a thorough quantitative and qualitative analysis at the hands of an expert analyst. Contrary to the opinion of Messrs. Parry and Bennett, and with all due deference to these gentlemen, we do not think that any resin-spirit as a distinct article is the medium of adulteration. We have an intimate acquaintance with the districts where the oil is distilled, and are not aware of any other oil or resin-spirit being made which could be used as an adulterant; but, in our opinion, the adulterant is the same as it has been for the last ten or fifteen years—namely, petroleum or, as it is more commonly called here, kerosene. The only change that may possibly give rise to the suggestion and presence of resin-spirit is that change in kerosene which has taken place within the past few years, for the Russian bulk petroleum installations have almost altogether ousted the former American qualities, and, being carried from door to door as it is, a cheap, handy, and well-known adulterant is at hand to every native wishing to increase the quantity of his distillate. The differences between the two petroleums mentioned are very marked, and if Messrs. Parry and Bennett were to experiment with a pure oil and Russian kerosene we think it very probable that they will arrive at the same results as they have done in the adulterated samples they have examined.

Yours faithfully,
CHAS. P. HAYLEY & CO.
Galle, March 25.

Mercurius Perennis.

SIR,—That spring is a month in advance goes without saying—in fact, several plants are in flower which are not due until June. There is one, however, that defies every season—*Mercurius perennis*. Its habit is really audacious—it is everywhere, and so encroaching that it obscures crops of lowly vegetables, and even shoves other weeds from their accustomed habitat. The plant is deciduous, and its mode of propagation curious. As a microscopical object it is interesting. Botanical writers consider it poisonous—it is severely let alone by beast, bird, and insect. Horses, asses, and sheep reject *M. perennis* with signs of aversion. A plant with such pronounced qualities may be worth the attention of our friends of the research-laboratories. It is said "that nothing exists in vain." Maybe this is an instance like "the toad, although ugly and venomous, yet bears a precious jewel in its head." *M. perennis* should not be confounded with *M. annuus*, which is a less common plant growing in shady places. I have found it in the public garden at Richmond under some trees on the right-hand side from the entrance—the leaves are smooth, broader, and prominently veined. I remain,

Very faithfully yours,
R. GOODWIN MUMBRAY.

Deal, April 14.

Is it Worth While?

SIR,—Just now, when the daily papers seem to be exercising their young lions on the substitution-question, and making what has all the air of a dead-set at the pharmacist,

it is not very easy for the drug-trade to review its own attitude, and that of advertising-firms, in a spirit of entire calmness. The daily newspapers, of course, have their advertisers to please : it is not surprising that their attitude is not all that we, as chemists, could prefer. Naturally such small considerations as a chemist's right to live on his business, and to that end make a living profit on what he handles, are far from perturbing them. But there are certain reflections which the whole question suggests, and which, however little palatable they may be, we cannot very well afford to ignore. After all, we are not in business for our health, and the main consideration—given the position as it exists—is that of the tactics by which we may most reasonably expect to make the best of it.

Admitting that it galls a man to have to handle certain articles of commerce, thanks to our neighbour the cutting drug-company, without profit, and that, in the past, the difficulty has been met, on the whole, with a fair amount of success by pushing specialities of our own in place of proprietary articles advertised by other people—which is what the newspapers and the advertisers call substitution—the question is whether, as things have developed now, this solution is any longer satisfactory. We have, as individual traders, to fight a class of very astute and experienced combatants, and there is no advantage whatever in shutting our eyes to the fact that the big patent-medicine houses are hitting back, with the newspapers to support them, and that from the point of view of pure *L. s. d.* we should probably get a good deal more out of the power we possess of putting a spoke in the wheel of these gentry if we used it to secure an amicable working-arrangement, fair to both parties, than we can by continuing the effort to fight the large advertisers, who (let us face the fact squarely) certainly show no disposition whatever, so far as the most practically important of them are concerned, to allow themselves to be forced into the P.A.T.A. It is very well to publish, and quite a good tactical measure that we should continue to publish, long lists of articles which are, in fact, on the P.A.T.A. list. But we may just as well admit to ourselves that the very biggest sellers, the articles which are in the most constant demand, and which the company-druggist constantly uses as his showiest implement of competition, remain outside the list, and obstinately decline to interfere with what, in a rather question-begging phrase, they call "Free Trade."

Now, let us be candid with ourselves. It is not our friendship that sells these things, because we are not friendly to them. It is not the friendship of the company-pharmacist that the sale depends upon. It is advertising that does the business, and advertising acts through public feeling—nothing else. The whole initiative of the demand comes, so far as we know and feel it, from the consumer. Therefore, while we can no doubt do the advertisers of proprietary articles a certain amount of mischief by refusing to handle their goods, and still more by handling them but talking them down on every possible occasion, we cannot kill them in that way. If we could, these articles would be dead already. They are very much alive, and, what is more, they are kicking. They have got the ear of the public. The demand shows this. To push substitutes is no doubt very gratifying to our self-love, and when we can sell these substitutes there is money in our pockets. But the "warnings" of the advertiser against substitution are every day becoming more clamant, and there is probably no one behind the counter of a chemist's shop who is not already beginning to experience the fact that these warnings are actively taking effect, and causing people to resent being talked to about substitutes—even to take their general trade elsewhere. The company-druggist, though he keeps and displays substitutes, does not, in fact, push them to the extent we do, and he finds more and more that it pays him to hand out what he is asked for. He certainly does not do this for the fun of it. He is not (to repeat a phrase already used) in business for his health any more than ourselves. He finds cut prices on proprietaries a useful "draw" to the sale of goods that are not proprietaries, and he is not such a fool as to throw away that advantage by worrying his hurried customers with persuasion or argument. He sees his chance and takes it. In a short time advertisers of proprietary goods will find it worth while to recommend their customers to obtain their supplies from the drug-store

rather than from the chemist, and we may be quite sure that it will not be for proprietary goods alone that people will desert us.

Looking at the matter from a commonsense point of view, the proprietors of advertised specialities cannot be unaware that the present state of affairs is a thoroughly artificial and unsound one economically. It is not natural that a large part of the retailing of their goods should be done without profit. They are already in a state of mind (as their correspondence shows) ripe for change. But they will not be forced into the P.A.T.A.—not the largest advertisers and most important firms; not the big sellers. The P.A.T.A. has not, by its methods and its mode of attack, commended itself to the manufacturers of proprietaries that enjoy the largest sort of absolutely popular demand. But these people are all of them anxious to see the present conditions put an end to. They seek peace; but they cannot ensue it, for the very simple reason that well-nigh universal substitution stops the way. When they are asked to protect prices, they reply, "That is all very well, and we would like to do it. But every penny added to the practicable selling-price, every obstacle placed in the way of absolutely free handling, only exposes us the more to substitution. We are not going to alienate the sympathies of our best friends, the cutting drug-stores, and damage our trade by increasing the cost of our goods to the public, for the benefit of chemists, who do everything in their power to injure us, and who would take advantage of the conditions they ask us to create in order to substitute all the harder." Is there, in effect, any real answer to this argument? Would not the effect be, in fact t what these people state?

As it is, at this time of day, impracticable for chemists to combine, and secure the unanimous adhesion of the company drug-firms, for the purpose of abandoning cutting, or reducing it to sane limits, the only remedy and the only thing which will save us from the irritation of our customers, stirred up by proprietary advertisers, is a working agreement with the latter. And the only thing which will secure such an understanding is the abolition of substitution. After all, the net return in a year from all one's substitutes is not a great thing when compared with the alienation of general trade. Is it worth having, in that comparison? Is it worth while? Would not a moderate percentage of profit on proprietaries, plus the withdrawal of "warning" advertisements, and the retention of public confidence, fast being undermined at present, more than compensate for the sacrifice of all we make on substitutes? It is all very well to talk about the sort of profit justly due to an expensively trained man, and to contend that the full margin between the conventional marked price and the wholesale rate ought to be secured to us. It cannot be so secured, in any event. The public won't pay it, and, after all, the amount of education and training required to hand out a bottle of Blank's blood-balm when it is asked for is trifling. The dispensing department must pay for education. Let us beware lest we drive business away from it.

No one, it may be supposed, wants to interfere with the right of a chemist to have his own specialities. What is objected to, and with reason (whatever the hotter zealots of the P.A.T.A. may say), is the practice of using other people's advertising to sell those specialities as substitutes. The company-druggist runs his specialities, and no one complains of them; no one complains of him, except us. We could retain perfect freedom if we would abandon substitution. But it must be a real abandonment, not a pretence. If a general feeling could be found to exist among chemists in favour of giving up sincerely and definitively all substitution, all argument directed against proprietary articles asked for by the public, it would be very well for a large and representative congress to meet and pass a resolution to this effect, conditioned by an undertaking on the part of certain specified advertisers to secure at least 20 per cent. profit. Such a resolution, if passed by a really representative gathering, would almost certainly eventuate in the cure of the present anomalous, absurd, and utterly impracticable situation. The P.A.T.A., for reasons already stated, would hardly fulfil the conditions required of the organising body; it is too much distrusted by the advertisers outside its ranks; and the situation emphatically calls for

Substitution.

SIR.—I think after the way a certain daily paper is constituting its columns to the advertising quack who is adopting the slanderous method of advertising his nostrums at the expense of damaging chemists' reputations, it is time chemists should do something to retaliate. One method would be, in future, to refuse to stock "patent" medicines at all, or at least only those on the P.A.T.A. These proprietaries are the greatest curse to all retail chemists, and are to a great extent the cause of the deplorable state of pharmacy at the present time.

In charging chemists with inaccurate dispensing and substitution, the writer, who is seemingly an American, does not discriminate between chemists and limited companies, but probably the latter are the "larger chemists" referred to in the paragraphs.

Yours truly,

ANTI-PENNY-IN-THE-SLOT CHEMIST. (14/22.)

Protected Prices.

SIR.—Why should the wholesale trade be made responsible for retail selling-prices? The chemists who are crying out for protection are the retailers, and if they want to keep up prices they ought to arrange amongst themselves what they will sell at. If the retail trade have no faith in one another it is not likely they will adhere to any undertaking they give to the wholesaler.

Yours truly,

ONE IN THE WHOLESALE TRADE. (8/41.)

Tarragona Wine.

SIR.—As many so-called Tarragona wines are now being offered by several firms, I would advise buyers to see that they obtain a guarantee that the wine bought is genuine Tarragona. This is important from a medical point of view, as doctors frequently recommend Tarragona for anaemic patients.

Yours, &c.,

Llanelly, April 8.

MORGAN W. JAMES.

The Boots Agreement.

SIR.—If Mr. Pickering thinks the hardship of the agreement he mentions in your last issue is in Clause 4, allow me to say that a few years ago, on joining a private firm, I was asked to sign an agreement debarring me for a far longer period and for a much wider area than Clause 4 mentions. Mr. Pickering might gain more knowledge of agreements and stricter clauses if he would apply to a few more Midland private firms and companies.

Yours faithfully,

HOPING HE DOES. (12/9.)

Xylem (13/64) also writes to say that he considers the Boots' agreement "fair enough."

Particulars of Employers.

SIR.—Would it not be fair to ask advertisers for assistants, managers, &c., to let possible applicants for their situations know remotely where they are, who they are, what they require, and what they pay? As the case stands now, the applicant has to show his whole hand before his opponent has played a single card. I myself have gone through the whole story—assistant, employer, and (of late years) manager. I am at present in charge of a provincial retail, but would like again to be in town. I feel a reluctance to reply to many advertisements, as from their wording they might be in Timbuctoo or from one of a series of so-called members of the trade holding many businesses, or from certain companies (town or provincial) whose vacancies the better class of "the unemployed" would rather decline.

Yours obediently,

C. NEX. (253/16.)

Stores and Assistants.

SIR.—Why all this bother about Mr. Pickering and his herculean ability to work without assistance? In his letter he states that at present he is working a business of 1,000*l.* practically single-handed, yet I notice he is advertising for a berth as manager or traveller. Does the latter mean that this Napoleon of energy intends touring the country giving practical demonstrations of his prowess, or is he merely looking for more work after his recent exertions? Would it

not be better to treat Mr. P. as the Irishman did his consumption—with silent contempt?

Yours, &c.,

TALIPH. (10/74.)

SIR.—In reply to "Verax," I beg to say that the qualified assistant has a right to the following privileges, but hardly ever gets them: (1) A full, undisturbed hour for the midday meal and three-quarters of an hour for tea; (2) half-holiday weekly; (3) a reasonable after-hour duty, and Sunday work in proportion; (4) a fair salary, and live away from the business. As only one chemist in ten can, or will, satisfy these modest requirements, the assistant is compelled to go to the Stores, and "good luck to him."

Yours,

XYLEM. (250/3.)

Pharmaceutical Council Election.

SIR.—It would be highly gratifying to many in the North could three members of the Council be claimed as representative Scottish chemists, and apparently that in itself would be favourably regarded by chemists generally throughout England as well as in Scotland. It is persistently stated, however, that Mr. Paterson, of Aberdeen, cannot fairly be considered representative of Scottish pharmacy; that he is not, and never has been, engaged in regular retail pharmacy, and that while the Register gives his qualification as having been in business before August 1, 1868, his business now is really and truly that of a manure-merchant. If these statements be true, which, so far, I have no reason to doubt, it is unfair for the electorate to be kept in ignorance of them, but if they can be denied or modified, correction should be made without delay. It would be amazing should chemists at this date knowingly appoint to represent them on the Council of the Pharmaceutical Society any gentleman whom they could not regard as a chemist in practice, in reality as well as in name. The other Scottish candidates, Messrs. Storror and Currie, are well known as being good specimens of Scotland's chemists, with minds for English needs as well.

Yours faithfully,

Greenock, April 13. J. ANDERSON RUSSELL.

[On receipt of this letter on Wednesday we asked Mr. Paterson, by telegraph, as to the correctness of the statement. He replied: "Served apprenticeship to wholesaler, and in dispensary for dispensing. Had charge of latter several years. Have sold chemical manures ever since in business."]

The Chemist and the Carpenter: a Homily.

SIR.—I recently had presented the following prescription to dispense:—

Acid. carbolic.	...	...	...	gr. iv.
Cupri sulph.	...	...	...	gr. iiij.
Spt. vini rect.	...	...	...	ijij.
Aq. ad ...	...	...	...	ijj.

Ft. lotio.

To be warmed and used three times daily.

This is written by one of the most eminent aurists in the Kingdom. It had been dispensed by a good firm of chemists in the provinces, and by a store which advertises that each branch is superintended by a chemist qualified by the examination of the Pharmaceutical Society. The chemists charged for this 1*s.*, the store 4*l.* The chemist was, doubtless, a great cheat; and the store, no doubt, very honest. It is amusing to see the way in which "Another Store Man" flatters himself the storekeepers are not as other men, or even as those exorbitant chemists. There are two ways of being honest—one to yourself and one to your neighbour. Now take the case of the chemist. He had an expensive schooling till he was at least 16, he was apprenticed from three to five years, during which time he earned nothing more than his keep, and his father probably paid a premium, larger or smaller as the case may be. After apprenticeship he was sent to a pharmacy school from one to two years, and had to board out, still earning nothing. He paid 2*l.* 2*s.* Preliminary fee, and was met at the Minor with another fee of 10*l.* 10*s.*, with the certainty almost of being rejected, and, if so, another time of schooling with more expense; and another 3*l.* 3*s.* every time he presents himself at Bloomsbury. No wonder apprentices are scarce, and good assistants who are business-men hard to be met with. A declining register

and failing finances seem to me to say that the present system is killing the geese that ought to lay the golden guineas.

Now compare the lot of the carpenter with the lot of the chemist. The boy goes to the elementary school, and can have free education if he asks for it, consequently there are no school-fees. In due time he is apprenticed, and immediately receives wages rising each year. Meanwhile he can avail himself of the technical school, school of art, or other night schools, where he may take up mathematics, shorthand, modern languages, &c., or technical instruction, as he pleases, almost without fees. He is now out of his apprenticeship with hours restricted to fifty or fifty-four per week, and for the time he works for me I am charged 9½d. per hour. His time is charged from leaving the yard with every nail, screw, or bit of wood—all is totalled up. Fifty hours at 9½d. comes to 39s. 6d. for manual labour which has not required a college training or examination-fees, while as a full return on the outlay a chemist's assistant works about seventy hours a week for 35s. to 40s., and his employer must invest his capital, give his skill, have his brain racked with risks, incur liability for damages or a prosecution for manslaughter if a mistake occurs, and in addition thereto give his time and material, and make up an ounce prescription for 4d. or an 8-oz. for 8d. or 10d. Are education and skill of no value? Where can we find a much worse investment?

Where is the justice of the thing? My next-door neighbour is a grocer who sells drugs, and who according to the opinion of various writers ought to be able to test the purity of what he sells, yet he does not know what *materia medica* is, has not had instruction, neither has he seen the inside of an examination-room or been confronted with that wonderful map which is to test the student's knowledge of geography as well as the subject in hand (a manifestly absurd thing). Yet my neighbour is allowed to do all the chemist can do, except dispense and sell a few poisons. Why test one without the other? If analysis, volumetric and otherwise, is necessary for the druggist to test his drugs before he sells them, why is it not necessary for the grocer or the store-man? Why bother one with microscopic and structural botany, with the recognition of plants? Why should one know where the drug is grown, its dose, its official preparations, &c., and not the other? There are in this town a limited company of grocers who boldly label their goods "So-and-so, chemists." Indeed, the great bulk of the retail trade is now done by the grocer. It is over fifty years since I was apprenticed, and I have been a constant reader of *THE CHEMIST AND DRUGGIST* and have watched the trend of things, and I am convinced that we were far better off before there was a Pharmacy Act, because the Act does not go far enough. It has only hampered the chemist without protecting him.

Yours truly,
SENEX. (2/5)

One-man Companies.

SIR,—On March 25, as was reported in *THE CHEMIST AND DRUGGIST*, I was summoned at the instance of the British Dental Association and charged with contravening the Dentists Act by using a description implying that I was a registered and qualified dentist. I was fined 8/- and 5/- 5s.; costs because the Magistrate held that, although acting as the servant of a company, I was the man who actually "saw the patients." Altogether the case cost me over 20/. Upon the conclusion of the proceedings, however, the Magistrate agreed to state a case, and for three reasons I am determined now to take the matter to the High Court: (1) I am qualified as a dentist in Austria-Hungary; (2) though I am the managing director of the West Central Dental Institute (Limited), a fully qualified dentist is employed by the company, to whom I act as assistant; (3) I have never represented that I am a qualified British dentist. The case, in short, is a test-case, and it will be to the interest (1) of all other companies and (2) of all other practitioners not possessing English licences to have such an important question as this properly threshed out. I may state that several other companies have already subscribed towards a fund required for proceeding with the appeal, but more money is necessary. There are in England to-day scores of others, including the majority of chemists, who, under the decision in my case, are liable at any moment to be prosecuted for "seeing the patient." For our own safety it is imperative

that we should combine, and I therefore solicit the support of all concerned. Communications should be addressed to Messrs. Arthur Newton & Co., solicitors, 23 Great Marlborough Street, London, W.

Yours, &c.,
60 Gower Street, W.C., April 14. JOHN PANHANS.

SIR,—As an old subscriber to the *C. & D.* I have been looking to see your opinion on the recent prosecution under the Dentists Act of the West Central Dental Institute (Limited), when the manager, Mr. Panhans, was convicted and fined although he employed a registered dentist. I am sure several of your subscribers are interested in this matter, and I should like to know on what grounds he was convicted. In the *C. & D.* Winter Issue, January 26, 1901, you replied to a correspondent thus:—

Limited companies are also exempt from the Dentists Act, and many such companies call themselves dentists with impunity, for the law does not interfere. It is a common but erroneous error that it is essential for such companies to have a qualified person on the premises, but the Acts no more touch companies than they do the dome of St. Paul's Cathedral.

How is it, then, that the manager of the West Central Dental Institute (Limited) was convicted and fined? I understand the Magistrate has consented to state a case, and also know that Mr. Panhans is not able alone to stand the legal expenses, which are heavy. As this is a question in which I am sure many of your readers and subscribers are interested, it would be good if it was taken to a higher court so that all may know how they stand. To enable this to be done, will you open a subscription-list in your influential journal? I am sure there are many who would willingly give what they could so as to have a definite decision.

I am, Sir,

INTERESTED. (11/27.)

[Proceedings were not taken against the company but against Mr. Panhans, who previously was fined under the Dentists Act for infringement of Section 3 thereof, and, as reported in the *C. & D.*, March 28, page 523, he has continued the business as the West Central Dental Institute (Limited). In spite of the defence that Mr. Panhans did not use the title "dentist" or its equivalent, the Magistrate appears not to have been convinced that Mr. Panhans's position was different on this occasion from what it was before he formed the company. Our sole interest in the appeal would be in the confirmation of the Magistrate's decision by the High Court. It would be a gain to fair trading in pharmacy, as well as in dentistry, if the legality of the one-man company-business were finally settled. This may probably be done through the case to be stated by the Bow Street Magistrate.—EDITOR.]

Legal Queries.

Consult "The Chemists' and Druggists' Diary," 1903, before formulating Queries.

1/62. *Conium*.—A pharmaceutical chemist summoned to attend a coroner's inquest as a witness to the sale of a poison, which has been the cause of death, must attend (subject to a penalty of 40s.) and answer any lawful questions put to him (subject to the same penalty). The only professional fee recognised by the Coroners Act, 1887, is that payable to legally qualified medical practitioners.

2/57. *Chinosol*.—When a month's notice is given on a Saturday night the period to be served is four clear weeks. For example, if the notice were given on April 4 the assistant remains until the end of the day's work on May 2. Mid-day has nothing to do with this matter.

3/5. *Senex*.—The Commissioners of Inland Revenue would permit a meat-and-malt wine with 1 gr. of quinine salt to 1 oz. to be sold without a wine-licence, but you should ask permission through the local Inland Revenue supervisor, as the General Order applies solely to *vinum quininæ B.P.*

2/31. *M.*.—When a business changes hands the assistants are entitled to a month's notice or equivalent in salary from their employer who is disposing of the business. If they have served part of the month, the month's salary includes that part.

259/67. *Inquirer.*—The man is trying to blackmail you. Receiving an article as surety for a loan is not acting as a pawnbroker.

Z/3. *Veritas.*—(1) If the word "Kof" means "cough," the following paragraphs on the label make them liable to stamp-duty:—

See that every box bears the name —. None others are genuine.

These —. Just the thing for public speakers, singers, and the voice.

The second paragraph is on the border-line, but the first claims a proprietary right. (2) You may use the words "Royal Standard" if you like. They belong to nobody.

11/69. *J. W. E.*—The advantage of the assistant's certificate of the Apothecaries' Society is that it makes the holder eligible for certain appointments, thus saving the trouble and expense of obtaining a higher qualification. The legal power it conveys is that of acting as an assistant to licentiates of the Apothecaries' Society, who must employ such certificated assistants to do their dispensing if they delegate the work. This obligation is, we fear, a dead letter.

11/63. *Doubtful.*—(1) It has been held that the sale of a preparation of a poison is to be regarded as a sale of the poison itself. This applies to Ireland. Stomachic mixtures containing mere traces of chloroform or ether would not be regarded as poisons, but an unqualified person dealing in such articles may be got at for keeping open shop for the sale of poisons, the presence of chloroform and ether on the premises being evidence against him. (2) It is illegal to make iodine liniment with methylated spirit, or to sell it, without the express sanction of the Board of Inland Revenue. (3) A prescription written by a quack for the cure of an ailment is a medical prescription within the meaning of the Pharmacy Act (Ireland).

12/16. *Molar.*—You, being a registered medical practitioner, may call yourself a dentist, as the penal clause does not apply to such practitioners.

10/54. *Saxaline.*—The label for the aperient crystals will not render the medicine liable to stamp-duty even although it is not an entire drug.

10/49. *Dens.*—The law in regard to the formation of companies to practise dentistry is the same as that which applies to the drug-trade: seven unqualified persons may form such a company and use dental titles.

9/20. *Cahir.*—A registered druggist holding the assistants' certificate of the Apothecaries' Hall in Ireland cannot perform all the functions of a pharmaceutical chemist, and has not the qualifications necessary to entitle him to be the legally qualified manager of the shop of a pharmaceutical chemist.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

252/31. *Bner.*—The article on Bacteriology in THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, gives all the information you ask.

253/48. *Apprentice.*—Ice-cream.—The basis of ice-cream is either a custard (made of four eggs, 3 oz. sugar, and a pint of milk), a starch-jelly (cornflour or arrowroot), or a gelatin-solution suitably sweetened. By the use of various flavourings and colourings, added before freezing, any desired ice-cream may be produced.

8/40. *J. W. H.*—We do not know any Medical International Pension Fund. There is a British Medical Benevolent Fund which is administered on somewhat the same lines as the Pharmaceutical Benevolent Fund.

252/47. *G. W. B.*—We do not see that you can well improve the meat-and-malt wine.

151/16. *Ajax.*—The object of using unbleached petroleum oil in making emulsion is to ensure that it does not develop a sulphuretted odour. The latest edition of "Pharmaceutical Formulas" says "it is made from a refined, neutral, inodorous, and tasteless liquid paraffin."

257/1. *Protoplasm.*—Nux vomica in powder is given to cattle in cases of paralysis. Horses do not stand the drug so well as cattle, the usual doses being as follows: Horses, 5j.; cattle, 3ij. to 3iij.; sheep, gr. xx. to gr. XL.; pigs, gr. x. to gr. xx.; dogs, gr. ij. to gr. viij. The doses are given twice daily, and may in each case be increased slightly until physiological or therapeutical effects are produced. Powdered nux vomica is administered either in gruel or as a ball. It should be noted that soluble forms of nux vomica act quicker than the powder, and that the dose is correspondingly less.

261/33. *Rex.*—*Tamarind Cough-elixir.*—Boil 1 lb. tamarinds with a pint of water and strain through muslin, washing the marc with hot water to produce 40 oz. of product, which mix with the following:—

Potass. nitrat.	...	...	...	...	3ij.
Tr. chlorof. et morph.	...	...	...	...	3ij.
Vin. ipecac.	...	...	...	...	3iv.
Ext. glycyrrh. liq.	...	...	...	...	3iv.
Syr. papav. alb.	...	...	...	...	3iv.
Aq. cinnamomi	...	...	...	...	3x
Oxymel scilla ad	...	...	...	...	3XL.

The dose for an adult is one teaspoonful three or four times a day.

3/26. *P. Q. R.*—*Charges for Printing.*—The usual charges for printing from customer's own negatives on P.O.P. are: Quarter-plate, 2s. 6d. dozen; 5 x 4, 3s.; half-plate, 4s. 6d.

2/40. *A. & S.*—*Steel-welding Composition:*—

Borax	...	...	...	...	6 oz.
Sal ammoniac	...	...	...	...	1 oz.
Yellow prussiate of potash	...	...	...	...	1 oz.
Iron filings	...	...	...	...	½ oz.

Mix the above ingredients, in powder, with water to form a paste, and after standing for a few hours evaporate the water and powder the resulting mass.

The welding-composition is sprinkled on the parts to be welded from an iron spoon, the pieces of metal to be joined having previously been heated to a white heat in a charcoal fire.

255/56. *E. W.*—You cannot be wrong in consulting Dr. Graham Steel, 96 Mosely Street, Manchester, who has written a good deal on kidney and heart diseases.

8/51. *Ajax.*—*Ineandeseent Mantles.*—See *C. & D.*, January 24, page 131.

9/13. *A. & S.* ask "if there is any kind of material which can be used for sealing which is soft enough to be made pliable by the heat of the hand yet which will, after sealing, go as hard as ordinary sealing-wax." We know of nothing that fulfils these conditions. Perhaps our subscribers will make suggestions.

11/60. *A. II. W.*—*Inf. Tritiei Repentis* is usually so well charged with micro-organisms that mixtures of it will not keep more than a day or two. If, however, the infusion is boiled after it is made and ten drops of formalin added to each pint the mixtures keep for a comparatively long time.

8/13. *Caseine.*—*Testing Milk with Rennet.*—It is difficult to tell to a second the coagulating-point of milk with rennet. By repeating the experiment several times with accurately measured rennet-solution and milk it is possible to hit upon the time with a fair amount of accuracy. Lezé and Hilsont devised a method of milk-analysis based on the time taken for coagulation with rennet, the latter solution being adjusted so that 1 c.c. coagulated 100 c.c. of normal milk in four minutes.

13/8. *Ion.*—Miss Stanley's "Manual for Assistants' Examination, Apothecaries' Hall," is published by Renshaw at 3s. 6d. The other book you mention we do not know.

239/10. J. R. E.—Making Dry-plates.—The winning formula of the Paget Prize Competition, published in the *Photographic Journal* for 1880, was one of the first working recipes for gelatino-bromide plates. Abney's "Treatise on Photography" contains a formula and ample instructions for making dry-plates, and is the recipe which amateur plate-makers usually follow. Several formulae are given in Woodbury's "Encyclopædia of Photography," including the Paget recipe mentioned above, and the Burton process, which is the prototype of the Abney formula.

12/33. Chemicus.—Your specimen is the polopody fern.

1/14. Earthenware.—Glazes for Pottery.—The two chief glazes in use are the salt and the lead glaze. The former is used with such pastes as contain a considerable excess of silica uncombined with alumina, and the process consists in throwing wet salt on the fire at the termination of the biscuit-firing. The lead glazes are also very extensively in use. These consist of silicates and silico-borates of the alkalies and alkaline earths, softened by the addition of oxide of lead. In making glazes of this kind a coarse glass or fritt is first made of borax, chalk, soda, and kaolin, and to form the glaze proper a proportion of the fritt is mixed with flint, china stone, and white-lead.

9/8. E. W.—Piesse's "Perfumery," which first appeared in the *Annals of Pharmacy*, was afterward published in book form by Lougmans at 21s., but is now out of print. Copies can generally be had by advertising in the Coloured Supplement.

214/7. Canol.—(1) The term **Cod Oil** is applied to a crude oil used in leather-dressing not prepared exclusively from the livers of the cod. (2) Vegetable tinctures always deposit more or less with age, but it does not follow that bad specimens of drugs have been used in their preparation. (3) **Parma Violet**—Dr. de Lessing's formula for this (*C. & D.*, July 5, 1902, page 23) is simple, but good. Other recipes are given in "Pharmaceutical Formulas," page 170; and *C. & D.*, April 28, 1900, page 703.

261/4. Rouge.—You will find Brazil wood or alkanet-root the best red colouring for vaseline, but for tinting chalk for tooth-powders carmine is preferable.

258/69. Shaver.—Alum-tablets for staunching bleeding from razor-cuts are made from fused alum. No formula is required.

234/53. J. E. M.—There are several processes of desulphuring or Devulcanising Rubber, but none entirely eliminate the sulphur. Gorness's process, which consists in the treatment of the vulcanised substance, first with iron filings and dilute sulphuric acid, followed by treatment with alkali, does not look promising. Michelin's process is based upon the affinity of sulphur for finely divided copper, tin, lead, or mercury. The metals are intimately mixed with the rubber, and, by means of benzene, toluene, chloroform, or carbon bisulphide, the regenerated rubber is dissolved out. In Gerber's patent the rubber is heated under pressure with toluene or other solvent and tin or some metal capable of combining with sulphur.

7/5. Spa inquires for an article on the history and characteristics of the **Palm-tree**. It is by no means clear which palm-tree is intended, as there are from 1,100 to 1,200 species recorded, most of which are of tree-like growth. From an antiquarian or scriptural point of view, the palm-tree is the date-palm (*Phoenix dactylifera*), the unopened and bleached leaves of which are still used in the Church on Palm Sunday, being brought here chiefly from Bordighera, where they are cultivated exclusively for decorative purposes. In lieu of these true palm-leaves, however, other plants are often used as substitutes—as, for instance, the willow, and sometimes yew, both of which are popularly known as "palms" in many parts of the country. Perhaps the most important palm-tree, from a commercial point of view, is the cocoa-nut (*Cocos nucifera*), now so widely distributed on the shores of tropical countries, and from which we get cocoa-nut fibre or coir, oil, copra, and the nut itself, now so largely used in confectionery. In India the most important palm is the palmyra (*Borassus flabellifer*); in

West Africa, the oil-palm (*Elaeis guineensis*); in the Moluccas, the sago-yielding palm (*Metroxylon Sagu*); and almost every tropical country has its most important member of the order. With an order of such vast importance, and composed of such a large number of individuals, the literature treating of them is necessarily vast and varied. The article "Palmaceæ" in Lindley and Moore's "Treasury of Botany" (Longmans, two vols., 9s.) might give "Spa" a clue to some of the principal genera, of which he might find further details in other parts of the volumes.

14/12. Statim Sumend.—**Oil of Earthworms** nowadays is rape oil, or other cheap vegetable oil, tinted with tar. For **Oil of Swallows** a similar oil coloured with green oil of elder is given.

Information Wanted.

10/9. Makers of extract alii?

57/13. Makers of silk-netting for suspensory bandages.

10/9. Who refills tubes with ethyl and methyl chloride?

8/4. Name of maker or agent for Fenilina preparations?

12/63. Makers or agents for aluminium boxes with embossed lids, suitable for cold-cream, &c., and inexpensive.

255/26. What is Parrott's diarrhoea-mixture? If not a proprietary medicine, what is the formula?

Coming Events.

Secretaries should send us notices by Wednesday of each week.

Wednesday, April 22.

Chemical Society, Burlington House, Piccadilly, W., at 5.30 p.m. Ordinary meeting. The following papers will be communicated: "The Velocity and Mechanism of the Reaction between Potassium Ferricyanide and Potassium Iodide in Neutral Aqueous Solution," by Messrs. F. G. Domnan and R. le Rossignol; "A Microscopic Method of Determining Molecular Weights," by Mr. G. Barger; "Note on the Spectrum of Pilocarpine Nitrate," by Mr. W. N. Hartley; "Isomeric Change of Dipropionylalide into Propionyl-p-aminopropiophanone," by Mr. F. D. Chattaway; "Note on the Formation of the Di- and Hexa-methylammoniacal Chlorides of Cadmium," by Mr. W. R. Lang.

Society of Arts, John Street, Adelphi, W.C., at 8 p.m. Mr. W. F. Reid on "Modern Bee-keeping."

Sheffield Pharmaceutical and Chemical Society. Mr. John Austen will read a paper entitled "Leaves from an Old Druggist's Journal," dealing with the following subjects: Shop-work in the thirties—An inquest—Some old travellers—Old Haymarket druggists, David Doncaster, John Hay, T. W. Powell, James Savory (the schoolmaster druggist), and Dr. Merryweather—Thomas Webster (the farmer druggist)—Mathew Darling—Edward Wilson—James Allen, Ph.D.—Joseph Ibbitson—The Ibbit family—Stories of old Sheffield druggists, &c. The paper is to be illustrated with portraits and druggists' reliques.

Thursday, April 23.

Chemists' Assistants' Association, 73 Newman Street, Oxford Street, W., at 9 p.m. Paper by Mr. J. A. Swan.

Liverpool Chemists' Association, Royal Institution, at 8 p.m. Ordinary meeting.

Peterborough Chemists' Association, Angel Hotel, at 4 p.m. Meeting for the purpose of adopting rules and electing officers.

Friday, April 24

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 9 p.m. The Hon. R. J. Strutt, M.A., will discourse on "Some Recent Investigations on Electrical Conduction."

A BOHEMIAN concert will be held in connection with the Imperial College of Chemistry, Ludgate Circus, E.C., at the Albion Hotel, Ludgate Circus, on April 28, at 7.30 o'clock. Ladies are invited.

MIDLAND PHARMACEUTICAL ASSOCIATION.—Members are requested to note that the date of the annual meeting, April 23, is postponed, and it is proposed to have an excursion at an early date in place of the annual dinner.

Trade Report.

NOTICE TO BUYERS—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: April 16.

BUSINESS has not yet been fully resumed on the drug and chemical markets, and there are no very important changes in value. Ipecacuanha is practically the only crude drug that has claimed attention, and a good export business has been done at rising prices. Opium is firm, and will probably be dearer. Quinine is flat, and prices are nominal. Shellac has shown more activity at higher prices, both for spot and delivery.

Cablegrams.

The following cablegrams were too late for our issue of last week:—

BERGEN, April 8.—The total catch of fish for all districts since the opening of the season now amounts to 19,100,000, against 27,500,000 at the corresponding date of 1902. The output of oil up to the present has been 1,506 barrels, against 14,561 barrels at the same time last year. The Lofoten fishery is now about closing, but the prospects for the other districts are fair. The quality of the livers remains poor, however, and the market remains firm at 45s. per barrel, f.o.b. Bergen, for best medicinal non-freezing oil. [To arrive at the correct estimate of the total amount refined this year, it is necessary to deduct the 450 barrels produced during the winter fishing (see *C. & D.*, March 28, page 526).—ED.]

NEW YORK, April 9.—The tone here is quiet. Opium is easier at \$2.95 per lb. for good druggists' qualities. Quinine has been reduced to 26c. per oz. for domestic make, and an easier tendency is noticeable in cod-liver oil, \$100 per barrel being quoted for Norwegian. Round buchu-leaves have advanced to 24c. per lb., and cocaine hydrochloride is 50c. per oz. higher. Bromides are becoming scarce, the current quotation for potassium being 25c. per lb. Senega is easier at 82c. per lb. for Western root.

SMYRNA, April 9.—The sales during the week ending Wednesday amount to 20 cases for the United States at 8s. per lb., f.o.b. Smyrna, for fair manufacturing opium.

BERGEN, April 15, 6.5 P.M.—The total catch of cod for all Norway, since the beginning of the season, now amounts to 25,457,000, against 30,325,000 at the corresponding period of 1902, and the output of oil to date stands at 1,680 barrels, against 15,543 barrels at the same time last year. Although the Lofoten fishing is not yet closed for the season, it is gradually declining, and the market has gained strength since the holidays, 480s. per barrel, f.o.b. Bergen, being quoted for best non-congealing Lofoten oil.

HAMBURG, April 16:—Carnauba wax, cumin-seed, and ipecacuanha are all firmer. Ergot is quiet, at 240m. per 100 kilos.

NEW YORK, April 16.—Business here is good. Buchu is firmer, at 24c. per lb., and peppermint oil in bulk has declined to \$3 per lb. Cod-liver oil is lower, at \$90 per barrel for Norwegian. Senega is easy, at 82c. per lb., and Mexican sarsaparilla is slow of sale, at 6c. per lb. Balsam of Peru is lower, at \$1 per lb., and manna is firmer, at 40c. per lb.

Heavy Chemicals.

A quiet tone continues to rule in the heavy-chemical market, and there is nothing of very special moment to be recorded. The export trade is of greater than average bulk. Values are steady and without material alteration.

ALKALI-PRODUCE.—Bleaching-powder and caustic soda are moving well on export account. Ammonia alkali is firm and in brisk request. Other main products stand as recently noted.

SULPHATE OF AMMONIA quiet at quotations nominally as last given.

ALUMINA-PRODUCTS are in average consumptive demand, and prices rule steady at unchanged rates. Crystal alum, loose lump,

57. to 57. 5s. per ton; lump, in tierces, 57. 5s. to 57. 10s. per ton; ground, in bags, 57. 12s. 6d. to 57. 17s. 6d. per ton, with customary extras for other packages. Sulphate of alumina, purest qualities and practically free of iron, 47. 7s. 6d. to 47. 15s. per ton, in ordinary sized casks, with usual allowances for bags and loose slabs. Aluminous cake, 52s. 6d. to 60s. per ton. Alumino ferric, 55s. to 65s. per ton, in accordance with condition and package, &c. Hydrate of alumina, purest quality and highest strength Al_2O_5 , 117. 15s. to 127. 5s. per ton, in large casks. Hydrate of alumina, special pulp, 12s. 6d. to 15s. per cwt.; special pulp, dried in lumps, 37s. 6d. to 38s. 6d. per cwt., and ground, 38s. to 39s. per cwt. Aluminate of soda, high strength Al_2O_5 , 35s. to 37s. 6d. per cwt., according to quantity and package. Carbonate of alumina, 35s. to 37s. 6d. per cwt. Chloride of aluminium solution, in barrels, 13s. to 14s. 6d. per cwt.

Liverpool Drug-market.

Liverpool, April 15.

CASTOR OIL.—Owing to one or two arrivals the market has been slightly easier, and sales of good seconds Calcutta have been effected at 2 $\frac{5}{16}$ s. d. per lb., from the quay, but now 2 $\frac{3}{8}$ s. d. to 2 $\frac{7}{16}$ s. d. is asked. First-pressure French is still available at 2 $\frac{3}{8}$ s. d.; second pressure, 2 $\frac{5}{16}$ s. d. per lb.

GINGER, AFRICAN.—Considerable sales have been made at prices ranging from 28s. to 29s. 6d. per cwt., but now importers are talking of 32s. 6d. A further advance seems likely.

BEESWAX.—Further sales of Chilian have been effected, including 7 packages of ordinary Chilian at 7l. 12s. 6d., and 7 packages yellow at 7l. 17s. 6d. per cwt. The market is practically bare.

CALABAR BEANS.—Further arrivals have taken place, and sales from the quay are reported at about 7d. per lb.

QUILLIA-BARK.—The advance indicated last week has been realised, and sales of ton lots have been effected at 18s. per ton.

TURPENTINE.—Steady, at 44s. 6d. to 45s. per cwt.

ACACIA.—Although no quotable change in the position, holders seem disposed to be firm in their views as to price.

German Drug Market.

Hamburg, April 14

Business is very quiet at present, owing to the recent holidays, and our drug-market shows few changes in prices since last Tuesday.

AGAR-AGAR is still very firm, at 330m. for prime, and 290m. per 100 kilos. for current quality.

CASCARA SAGRADA is dull of sale; forward delivery is obtainable at 70m. per 100 kilos.

CEVADILLA-SEED is firm and dearer, at 105m. per 100 kilos.

CAMPHOR (REFINED) is unchanged, at 435m. per 100 kilos.

ERGOT is quiet, at 260m. per 100 kilos.

IPECACUANHA is also quiet, Rio being quoted 13 $\frac{1}{2}$ m., and Cartagena 9 $\frac{1}{2}$ m. per kilo.

KOLA on the spot is scarce, at from 85m. to 100m. per 100 kilos.

SUGAR OF MILK is firm, at 100m. per 100 kilos.

WAX (CARNAUBA) is also firm, at 120m. to 122m. for grey; and 185m. to 190m. for fine yellow.

WORMSEED is scarce, at 105m. per 100 kilos.

OILS (FIXED).—Castor is still quiet and neglected, although the prices are very low. First-pressing in barrels, for April-December delivery, is quoted 41m. per 100 kilos. Cod-liver is very scarce, and hardly anything is offered. Rape is quiet.

OILS (ESSENTIAL).—Peppermint (HGH) is quoted 20m. per lb.; Japanese quiet, at 17m. per kilo.; star-anise is quoted 10 $\frac{1}{2}$ m. per kilo.

American Drug-market.

New York, April 7.

Business generally continues good, but the market is devoid of special features of interest. Buyers are purchasing only for actual necessities, but the undertone continues firm.

COCAINE is firmer, and manufacturers are now quoting at \$4 per oz. in bulk.

COD-LIVER OIL is a trifle easier, dealers having filled immediate wants. Small lots could be bought to-day at \$105 or, possibly, \$100, as some holders are anxious to clear stocks out before new goods are in.

CITRONELLA OIL.—Prime grades are scarce and firmer, at 22c. Second quality is still offering at 20c.

IPECACUANHA.—Rio is neglected, at 1.40 per lb.

JAPAN WAX has sold up to 16c. Quotations are firm at 15 $\frac{1}{2}$ c. to 16c., with little offering.

LITHIUM CARBONATE.—An effort is being made to raise quotations, but supplies are still obtainable at \$1.35.

MENTHOL is selling in small lots at \$6.25, but no large amount can be bought at this figure.

OPIUM is quiet but firm, at \$2.95 for case-lots.

PEPPERMINT OIL.—Bulk is slow of sale at \$3.25, and could be bought at a lower figure. HGH is firm at \$3.50.

POTASSIUM BROMIDE.—There is considerable export-demand for this salt at prices ranging from 25c. to 28c., but sellers cannot guarantee delivery in any reasonable time. Makers will only sell in single-case lots, and there is some scarcity at that. Quotation on the spot is 25c.

QUININE unexpectedly declined on Saturday to 26c. owing to lack of demand. Second-hands now offer German at 25c. and Java at 24c. per oz.

SENEGA is a trifle easier, though holders of the bulk of the supply refuse to shade 82½c. per lb.

Japanese Drug and Chemical Markets.

Yokohama March 20, 1903.

Our drug-market is quiet but steady, price alterations being mostly in favour of sellers. Although speculative business is small a fairly large proportion of stocks is going into consumption.

In export articles menthol is very firmly held at 14.25 yen per catty, without purchasers at present; buyers' idea of price is 13.50 yen. Peppermint oil is steady, at 7 yen per catty, with no large transactions. Agar-agar is quoted 70 to 80 yen per picul, according to quality and holders. Camphor is held at 65 yen per picul, and for refined tablets 93 sen per lb. is asked. Aniseed is wanted at 12 yen per picul. Dry ginger is advancing rapidly owing to speculative buying at producing-centres. At the first appearance of new crop there were no buyers even at 8.50 yen, but present price is 11.50 yen per picul, and 2,000 piculs have changed hands at from 10 yen to 10.50 yen for Indian account. Iodine is unchanged, holders quoting 3.30 yen for 90-per-cent. crude, 3.25 yen for potass. iodid., 5.25 yen for iodoform, and 4.20 yen per lb. for resublimed iodine.

In import articles the chief item has been the sharp advance in bismuth, which is 50 per cent. higher, and present price is 3.25 yen per lb. for subnitrate. Some 5,000 lbs. have changed hands for speculative account, at 3.10 yen to 3.25 yen per lb. It costs 3.80 yen per lb. to import. The stock is estimated at some 30,000 lbs. altogether in Yokohama and Osaka. Cocaine is firmly held, at 8.50 yen per oz., and a further rise is expected. Condurango is very quiet, at 24 sen per lb.; stock is estimated at 85 bales. Carbolic-acid crystals is quiet, at 28 sen per lb. in drums, and large arrivals are expected. Citric acid is firm, at 65 sen, and tartaric is also firm, at 56 sen per lb. Ergot is quoted at 82 sen per lb. without demand. Formaldehyde is selling very well, at 33 sen per lb. in 30-kilo. demijohns, and Schering's formalin is quoted 75 sen per lb. Glycerin is lifeless, at 28 sen per lb., owing to absence of demand, as the consumption season is closed. Rio ipecacuanha is weak, at 5 yen per lb., and for powder 4 yen is wanted. Jalap is scarce, holders wanting 33 sen per lb. in bales. Lycopodium is quiet, at 1.10 yen per lb., which is below cost. Morphine is firmly held, at 36 yen per lb. Quinine is firm, at 53 sen per oz., and for German muriate 77 sen per oz. is quoted, without brisk demand. Thymol is weak, at 3.50 yen per lb. Sulphonal is scarce, at 2.50 yen, and for phenacetin 2.10 yen per lb. is quoted and the tendency is lower.

AMMON. CHLOR.—From the Continent it is reported that a continued strong demand for crystals has caused makers to increase their production. The growing scarcity of raw material makes it difficult, however, to keep up with deliveries.

BALSAM CANADA is getting scarce, and there is said to be none on the spot. A little could probably be had at 2s. per lb.

BENZOIN.—The s.s. *Nykmidon* has arrived with 30 cases from Batavia.

BUCHU.—From 1s. to 1s. 2d. per lb. is now quoted from second hands.

CARDAMOMS.—At the general meeting of the Travancore Cardamom Hills Planters' Association held on February 12, the Chairman, in addressing the members, said, amongst other things, the price now ruling for cardamoms is the lowest on record, and the crop from these hills on the current season—653,000 lbs.—probably the highest. The cultivation of cardamoms had largely extended in south India, and he imagined that not less than 4,000 acres had been opened in the last four years by Europeans alone.

CASCARA SAGRADA is quiet, with sellers at 50s. spot. To arrive a few tons of last year's crop are offered at 55s., c.i.f.; and about 5 tons ten-year-old bark at 65s., c.i.f.

CINCHONA.—The quantities so far advertised for the London auctions on April 21 consist of 727 packages East Indian, 583 soft Colombian, 191 Calisaya, 163 Cuprea, 230 Ceylon, 87 African, and 60 Java. The shipments from Java

during the first half of April amount to 631,000 Amst. lbs., against 470,000 Amst. lbs. last year.

COCOA-BUTTER.—At the Amsterdam auctions on April 7, 85 tons Van Houten's sold at 57½c. to 59½c. (average price, 58 40c.), against 60-10c. at the previous auction), 51 tons Bensdorp offered, of which 25,420 kilos. sold at 57c. to 57½c.; 56 tons of various brands were bought in.

GALLS.—Chinese are firm and very little is offered. The s.s. *Bloemfontein* has arrived from Persia with 275 bags, and 1,172 bags in transit. Persian are quiet and lower on the spot, owing to the above consignments.

GUM ARABIC.—Reports from Egypt indicate a scarcity of good Kordofan gum, and the qualities of the new harvest are said to be unsatisfactory, being woody and dark. Consequently the market has hardened throughout Egypt and the Soudan, and an increase in the depressed prices in European market is looked for, especially for good ripe qualities. Good soft Kordofan gum is quoted 37s. 6d. spot, and hard pinky sorts at 28s. 6d. per cwt. Prices are tending firmer here.

IPECACUANHA.—There has been a good demand previous to and since the holidays, especially for Cartagena root. Both Hamburg and United States dealers have been buying, and for Cartagena from 3s. 10d. up to 4s. has been paid, and it is said very little is now obtainable, 4s. 3d. being asked on Wednesday. Rio has participated to a less extent, selling in small lots at from 5s. 1d. to 5s. 2d. for ordinary quality.

JALAP.—New crop is offered at 5d. per lb., c.i.f.

LIME-JUICE.—Good West Indian is still obtainable at 1s. per gal., although in one quarter, it is said, prices have advanced 2d.

MORPHINE.—Makers are firm, and the tendency is towards higher rates, but buyers are holding off. Hydrochloride is obtainable at from 4s. 2d. to 4s. 3d. per oz. in quantity.

OIL, CASSIA.—Prices continue in buyers' favour at from 2s. 6d. to 2s. 10d. spot, according to analysis.

OIL, CINNAMON.—Ceylon leaf oil is quoted 2½d. per oz.

OIL, CITRONELLA.—Both the spot and arrival market are quiet; 9½d. is quoted for drums, and 10½d. for caskets, on the spot.

OIL, COD-LIVER.—Our Bergen correspondent writes on April 11 that the Lofoten cod fishery is apparently closing, the last figures relating to the catch being very small. The holidays will, as usual, interrupt the fishing for practically a week. From the northern districts the reports as to prospects are very good, but the livers continue of the same unsuitable quality. The market is firm, and the quotation is as telegraphed. The exports from Bergen amount to 738 barrels, against 2,955 barrels at the same time last year. Business has hardly yet been resumed on the London market, and quotations remain practically as they were, 483s. to 485s., c.i.f., being quoted for new Norwegian oil, and 450s. for old oil on the spot.

OIL, LEMONGRASS, continues scarce on the spot, and holders now ask 6½d. per oz. on the spot.

OIL, PEPPERMINT.—Holders here report a steady market for American HGH at from 14s. 6d. to 14s. 9d. spot, but in the United States the oil continues to decline.

In calling attention to the break-up of the Trust, the New York *Commercial* states that during March peppermint oil dropped from \$4.10 per lb. to \$3.25, and it is said it can be purchased in New York for \$3. It is still above the normal price, and a further decline is predicted. Three years ago oil of peppermint could be purchased for 70c. per lb., but it has been gradually advancing until last spring, when it leaped from \$2 to \$4 per lb. In October it was quoted at from \$4.75 to \$5.20, and in November and December it was still quoted at those figures. The decline began in January, and on February 21 it went to \$4.10, gradually dropping to the present figure.

OPIUM.—The London market is quiet but firm in sympathy with Smyrna advices. Further sales of manufacturing Tokat have been made at 10s. per lb.

SMYRNA, April 3.—Some 67 cases of current talequale have changed hands this week at from 7s. 10d. to 8s. 1d. per lb., c.i.f., for account of interior speculators. These prices show an advance of 2d. per lb. over the previous week's quotations. As usual the bankers have facilitated the greater part of the business by advancing the money at 4 per cent. This sudden change has pre-

vented legitimate business, and the small consumers have abandoned the market, waiting to see if the large exporters will come forward. It is believed by many in the interior that the spring sowings are not doing well, especially those in the Karahissar district, where rain is wanted. If they should prove a failure, as the autumn and winter sowings have, it is expected that prices will advance 1s. per lb. before the summer commences. An estimate of the stocks places the quantity existing in Smyrna, Constantinople, Salonica, and in the interior at about 5,500 cases, out of which about 1,000 may be disposed of before the summer commences. At the end of June, therefore, we shall probably have a stock of about 4,500 cases, added to which the new crop is not expected to yield, under the best conditions, more than 4,000 cases. The arrivals in Smyrna to date amount to 5,170 cases, against 3,286 cases at the same date of last year.

SMYRNA. April 11.—The market has undergone no change, sellers are still firmly maintaining the position, and although one American buyer came forward and tried hard to obtain a reduction, he could not succeed, and was ultimately forced to pay the full price of 8s. for 30 cases selected good manufacturing quality. Native speculators are willing to go on at the prices paid last week, but instructions have been received from Karahissar to advance prices, and the market closes firm.

ORRIS.—The ss. *Maria Madre*, from Leghorn, has brought 191 packages.

PHENACETIN is quiet, at from 3s. 3d. to 3s. 6d. per lb. for both crystals and powder.

QUEBRACHO.—The following figures represent the exports of wood from the Argentine Republic during 1902, and the principal countries to which they were exported: Germany, 21,636 tons; Belgium, 8,466 tons; United States, 3,264 tons; United Kingdom, 1,135 tons; France, 1,136 tons; and Italy, 6,017 tons. Of the exports of quebracho extract Germany received 2,347 tons, Belgium 115 tons, United States 1,175 tons, France 12 tons, and Italy 922 tons.

QUININE continues a dull market, and in the absence of business prices are nominal. German brands in second-hands are quoted 1s. per oz. for May and June delivery.

The exports of quinine, quinine preparations, &c., from Germany during January amounted to 12,300 kilos, against 9,600 kilos. in January, 1902, and 10,400 kilos. in January, 1901.

SANDALWOOD.—The exports from Western Australia during 1902 amounted in value to 61,771*l.*, against 73,931*l.* in 1901 and 39,038*l.* in 1900.

SCAMMONY-ROOT.—A fair business has been done at 27s. 6d. per cwt. on the spot.

SENEGA.—There is a good inquiry, and business has been done at 3s. 6d. per lb., net, spot, and up to 3s. 7d. is quoted.

SENNA.—The tendency of Tinnevelly description is towards higher rates, especially as regards the better qualities of small leaf, for which buyers show a preference. Stocks have now passed into second-hands, and no arrivals are expected until August.

HELLAC.—The activity in the delivery-market previous to the holidays has since continued, and prices up to Wednesday are 3s. to 4s. dearer. A fair business has been concluded during the week, comprising April at 120*s.*, May 119*s.* to 121*s.*, June 118*s.* to 119*s.* 6d., July 117*s.* 6d., August 117*s.*, and September 115*s.* 6d. to 116*s.* 6d. For arrival several hundred cases of TN orange for April-June shipment have been sold at 114*s.* to 114*s.* 6d., c.i.f., and near at hand at 116*s.* 6d., c.i.f. On the spot fair to good TN orange has been taken at from 117*s.* to 119*s.* 6d. per cwt., according to condition. Sales of fine orange are reported at 160*s.*, and AC garnet is quoted 102*s.* 6d. to 110*s.*, according to condition.

SPICES.—No auctions were held this week, and business privately has been mostly unimportant. The market for Singapore *Black Pepper* is firmer, with a slow demand. Fair has been selling on the spot at 5*12*d., and for April-June and other positions there are buyers at 6*1*d. *White Pepper* is dearer on the spot, fair Singapore selling at 9*11*d. and Penang at 8*15*d. per lb. Quotations for arrival are nominal. *Pimento* is rather firmer at 2*2*d. per lb. *Zanzibar Cloves* are firm but quiet, April-June delivery being quoted 3*15*d., and June-August 3*2*d. per lb. *Japanese Ginger* has been sold on the spot at 31*s.*, and for March-May shipment 25*s.*, c.i.f., has been paid. *Cochin* rough has sold at 34*s.*, and for April-May shipment 33*s.*, c.i.f. *Hamburg*, has been paid.

TURMERIC.—*Bengal* is quoted 13*s.* on the spot, and *Madras* has been sold at from 13*s.* to 13*s.* 6d. per cwt. for good bright *Rajapore* finger.

Increase of Duty on Pepper in France.

A French Presidential decree has been issued, dated March 29, increasing the maximum and minimum duties on pepper imported into France from 400*f.* and 208*f.* to 450*f.* and 31*2**f.* per 100 kilos, respectively. The duty on pepper imported into France from French colonies and possessions is also increased from 104*f.* to 208*f.* per 100 kilos.

Cardamoms in Coorg.

In the course of the Administration report on the province of Coorg for 1901-2 it is stated that the country is still suffering from the depression brought about by the deterioration of the coffee-industry. Some idea of the depressed condition of the planting community may be gathered from the fact that of the total holding under the coffee tenure only some 57 per cent is now actually under coffee, cardamoms and oranges having taken its place over an area estimated at some 12,000 acres, while another 31,000 acres consists of abandoned coffee and unplanted jungle. Special concessions and reductions of assessment have been found necessary in regard to large areas.

The cultivation of cardamoms enjoyed no more favourable conditions. The outturn was normal, but prices continued at the low figure which has for years past practically ruined the industry; nor were the numerous reductions and remissions of assessment continued from previous years efficacious in reviving the prosperity of the cardamom-growers, whose operations extend over an aggregate area of upwards of 60,000 acres, of which, however, only a portion is actually cultivated.

The Italian Citrus-fruit Crisis.

The United States Consul at Catania states that the citrus-fruit industry of Italy has been for a long time in a deplorable condition. Lemons that a few seasons past commanded 15 lire (about 12*s.*) per thousand on the trees are now hard to market at 3 lire (2s. 5*d.*). Three mass meetings have been held, at one of which the Consul estimates over 50,000 (?) people were present, and the Government has been asked to obtain favourable treatment of citrus products in new commercial conventions; to see that Customs exemption in Austria-Hungary be retained; and that better tariff rates are obtained in the United States and Russia. Other facilities desired are the abolition of the octroi tax on fruit, the passing of a law on agrarian credit, and aid in the constitution of a large local syndicate for the production and exportation of citrus fruits and products. The lemon-juice and essential-oil trade has also been the subject of much discussion. The average annual production of the former varies from 12,000 pipes to 13,000 pipes, and of the latter from 1,400,000 lbs. to 1,670,000 lbs. It is proposed to form a monopoly (*sic!*) of this industry, which, it is said, could be done with a capital of 500,000 lire.

MAYOR FARNWORTH KILLED.

As we go to press we learn of the death of Mr. Walter Farnworth, pharmaceutical chemist, Mayor of Blackburn, under distressing circumstances. While driving to the Police Court on Thursday morning, April 16, the horse in his carriage bolted, and finally Mr. Farnworth was thrown out, falling upon his head. He was picked up unconscious, and medical aid was at once secured, but Mr. Farnworth died at 3 o'clock in the afternoon. He was only 37 years of age. It is but a short time since his pharmaceutical colleagues in Blackburn entertained him to dinner on the occasion of his election as Mayor of the town. Mr. Farnworth passed the Minor examination in 1869, and the Major in 1890. He succeeded his father in business, but a few years ago retired on a competency (having been exceptionally successful in property investments) and devoted his spare time to municipal work.



THE LATE WALTER FARNWORTH.

Anti-substitution.

SUBJOINED is a reprint of the third of the series of articles published by the *Daily Mail* on April 9 under the general title "The Fraud of the Label":

THE PIRATE IN THE CHEMIST'S SHOP.

To play tricks in chemistry is perhaps a little more dangerous than tampering with dynamite. There are few of us so healthy that we do not go or send occasionally to the chemist's shop for a drug, a lotion, a tonic, or a box of pills, or to have a doctor's prescription made up for us. Our health, and sometimes our life, depends on getting the right medicine. Therefore a chemist, of all men, should he relied upon in full faith to give his customers what they ask for and what they have a right to expect. Unfortunately, there is no trade in which all kinds of trickery are so systematically practised as by some retail chemists.

A SERIOUS EXPOSURE.

It is a startling and deplorable fact that many chemists do not hesitate to depart from the directions given in prescriptions by substituting cheaper and inferior drugs in order to increase their profit.

This practice was for the first time exposed by several doctors in a large town in the provinces. They had reason to suspect that some of the chemists were not making up their prescriptions as they should do, and it was decided to draw up a test prescription and give this to be made up by twenty chemists. Intentionally several expensive drugs were included in the prescription, and the medicine was designed to be a tonic which would be used to strengthen those who were exhausted by long or dangerous illnesses. It will thus be seen that the chemists who made up this prescription must have been aware that it was one of an important character, and that it was highly desirable that it should be made up exactly, and no drugs used but those specified.

The result of this experiment was startling. Only two out of the twenty chemists made up the prescription accurately and honestly. The consequence was that in several cases prosecutions were instituted and punishment inflicted. But the effect of this exposure was but temporary. The substitution of inferior drugs is still too frequently practised.

CHEAP AND NASTY.

Here is a striking example of what we are alluding to. A customer bought at a well-known chemist's a certain drug of powerful effect which is sold in various forms or varying degrees of merit, some of them being artificially produced and injurious to health. The customer asked definitely for the pure form of the drug, was informed that what he got was right, and paid the high price demanded. The effect of the dose was such that the customer felt sure he had been deceived, and upon making close inquiry found that he had actually been served with one of the cheaper and inferior forms of the drug.

Frequently when you go into a chemist's shop and ask by name for some well-known medicine the attendant will say, "Have you had this before?" On receiving an affirmative answer he will probably continue, "Well, here is something precisely the same which will do you just as much good, and which I can sell you cheaper, it being something of my own."

Again, if you ask a chemist for a well-known lotion for rheumatism, he will often reply that he can provide what you ask for, but that he has "something of his own" which contains every known drug useful for rheumatism, and that you had better purchase his than the article you have asked for, as one of the ingredients in his lotion must surely "touch the spot."

Now, this reasoning will not bear examination. In the first place the medicine for which you asked is probably manufactured from a secret prescription, and you may be quite sure the chemist has not taken the trouble to analyse it; how, then, can he know that his lotion is as good as the one you asked for?

Moreover, by saying to you that the substitute which he offers is "something of his own" he makes it, to say the least of it, easy for you to conclude that it is something of his own manufacture. This conclusion of yours will generally be wrong, as he has in most cases bought this "something of his own" from a wholesale house, and is not aware of, at any rate, all the ingredients of which it is composed.

It is also a fact that the clerks in some of the chief "cutting" houses are given a commission—usually 5 per cent.—on the sale of substituted articles.

THE FLATTERY OF IMITATION.

The fact is that the small retail chemist is constantly being tempted into paths which, if not illegal, are yet very "shady," by several large manufacturers whose methods are, to put it mildly, remarkable.

As soon as a medicine—a pill, a drug, a lotion, a disinfectant, or what not—has become very popular and its name a household word, these manufacturers prepare an imitation, give it a name varying only slightly from that of the original thing, and pack it

in boxes, bottles, or tins, as the case may be, closely resembling the form with which the public are familiar. This imitation is offered to the retail trade on terms which admit of much higher profits than are got from the sale of the original article, so that the struggling chemist is naturally induced to push the sale of the substitute in place of the other.

This is not only a severe loss to the manufacturers of the original article, who have built up their business at immense cost and energy—with that we have not so much concern—but it is a fraud upon the public, who, wishing to get the medicine of whose fame they are aware, are palmed off with something quite different, prepared by people of whose reputation and honesty they know nothing.

When substitution is about to be practised the question "Who is it for?" is very commonly asked, the reason being that if a servant or some person whom the chemist can easily bamboozle is going to use the drug, he feels that he can safely try to palm off a substitute. If, however, he thinks the medicine is going to be taken by a person of acuteness who is likely to detect a fraud, he is more careful.

A frequent occurrence, when a particular article is asked for in a chemist's shop, is for the salesman to offer some other article, which is said to be "double the strength and half the price," which statement may be rightly interpreted as meaning "a poorer article on which the chemist can make a bigger profit."

The smaller retail chemists, finding it difficult to compete with any success against the large stores, who, by selling enormous quantities of drugs, are able to "cut prices" and sell them much cheaper than their smaller rivals, have found it profitable in many cases to sell other goods in addition to their medicines. Generally their choice falls upon photographic material. But having appropriated this new line of business, they fall into the old temptation.

SUBSTITUTION AS A FINE ART.

This is the title of the concluding article, from which we extract the following:

The writer will now give the result of a few personal experiments made by himself during the past few days. The shops visited were not poky places in back streets, but were among the best-known and largest establishments in London, including certain big stores with branches all over the country, the latter, indeed, being the most flagrant of all. For obvious reasons it has been necessary to give fictitious names for the articles asked for and supplied, but they are all of a popular and well-known character in constant demand. The names of the shops need not be mentioned, but in the following table are merely indicated by the order in which they were visited.

1. All right on "Ovals."
2. All right, but pushed "Ovules" as good and cheaper.
3. (a) Sold "People's Perfect Pearls" when asked for "People's Perfect Pills," in tube similar to the genuine article. (b) All right on "Ovals."
4. (a) When asked for "Oxygen Ovals" the shopkeeper asked, "Which size, a 6d. bottle or a more expensive one?" and when I asked for the cheapest he said he had them in 3d. tins. He then gave me a tin containing a substitute, hearing a label with his own name and address. Inside the box-cover was a label of directions, in which the contents were alluded to as "Oblongs."
- (b) When asked for "People's Perfect Pills" was served with an American substitute.

5. (a) I asked for "Headache Ovals," and the same tin-fraud was played on me as in the previous shop. I then distinctly asked, "Are these 'Ovals'?" to which the shop-assistant said "Yes," opening the tin and showing me the contents. A casual glance was not sufficient to show the difference. Substituted "Ovules" when asked for "Ovals." (b) Were all right on "Rheumatic Cure."

6. Were all right on "Fattening Food" and "Disinfectant."
7. When asked for "Popular Pills" and "People's Perfect Pills" served American substitutes in each case.

8. Attempted no substitution.

9. Served a substitute for "Headache Ovals."

10. (a) Only after some pressure would they produce a "Bulldog Photographic Film," trying first to persuade me to buy another make. (b) They sell two makes of "People's Perfect Pills," the cheaper substitute being got up in a similar way to the original.

11. When asked distinctly for "Oxygen Ovals" handed out without a word of comment "Oxygen Oblongs."

12. When asked for "Ambrosia Tooth-paste" they served without any comment "Ambrosial Tooth-paste," a product of their own. This is a disgraceful case, as it is a striking example of deliberate imitation as well as substitution, and the fraud was done in one of the largest stores in the country.

Mr. J. Maltwood, for Liebig's Extract of Meat Company (Limited), writes to the *Daily Mail*, approving the articles and recommending "one-word" trade-marks. The trademark "Lemco" has almost entirely removed the evil of substitution from which his company suffered.

The April Minor Examination.

LONDON.

THE subjoined are dispensing and chemistry papers given to six candidates:

DISPENSING.

	I.	IV.	V.	VI.
(a) Syr. Eastonii	... 5iv.	(a) Mist. ferri co. ... 5vj.		
(b) Ferri redact.	... gr. j.	(b) Lotio hydrarg. nig. 5iv.		
Phosphori ...	... gr. $\frac{1}{10}$	(c) Ferri et quin. cit. ... gr. iij.		
Ext. nucis vom.	... gr. $\frac{1}{4}$	Strych. gr. $\frac{1}{50}$		
Ft. pil. Mitte xij.		Ft. pil. Mitte xij.		
(c) Ol. terebinth.	... 5ij.	(d) Ext. bellad. vir. ... 5ss.		
Tr. camph. co.	... 5ij.	Glycerin. ad ... 5iss		
Mucilag. ...	... q.s.	Ft. pigment.		
Aq. ad ...	... 5viii.			
Ft. mist.				
(d) Hyd. ox. flav.	... gr. ii.			
Paraffin. alb.	... 5j.			
(e) Emp. bellad.	... 4 × 6			
	II.			
(a) Syr. Eastonii	... 5iv.	(a) Spt. ammon. co. ... 5ij.		
(b) Emp. belladon.	... 6 × 4	Spt. chlorof. ... 5iss.		
Make and spread.		Tr. zingib. ... 5ij.		
(c) Boracis ...	... 5j.	Inf. cascar. ad ... 5vj.		
Zinc. oxid. ...	... 5j.	Ft. mist. ... Mitte xij.		
Liq. picis ...	... 5ij.	Pars sexta bis terve die.		
Adipis ad ...	... 5iss.	(c) Menthol. gr. 45		
(d) Mist. ferri co.	... 5vj.	Ol. amygd. ad ... 3ij.		
(e) Ext. nucis vom.	... gr. $\frac{1}{6}$	To be applied to the nostrils.		
Puly. digitalis ...	... gr. $\frac{1}{8}$	(d) Liq. plumb. subacet.		
Acid arsenios. ...	... gr. $\frac{1}{10}$	Mitte 130 grams.		
Excip. ...	... q.s.			
Ft. pil. Mitte xxv.				
	III.			
(a) Ammon. carb. ... gr. v.		(a) Tr. hyoscyam. ... 5ss.		
Ammon. chlor. ... gr. iiij.		Ol. terebinth. ... 5j.		
Ext. cinch. liq. ... 5iss.		Aq. ad ... 5iv.		
Aq. ad ...	... 5ss.	Ft. emulsio.		
Ft. dosis. Mitte 3vj.		(b) Iodoform. gr. ij.		
Sexta quaque hora.		Bismuth. carb. ... gr. v.		
(b) Make 5iv. of a solution that shall contain 8·25 per cent. of real acetic acid.		Ft. suppos. Mitte vj.		
(c) Suppos. acid. carb., B.P. Mitte vj.		(c) Calamine ... 5ij.		
(d) Emp. menthol. ... 6 × 4		Zinc. oxid. ... 5iv.		
(e) Hyd. c. cretæ ... gr. iiij.		Glycerini ... 5iv.		
Ft. pil. Mitte xij.		Aq. ad ... 5iv.		
		Ft. lotio.		
		(d) Acid. arsenios. ... gr. $\frac{1}{24}$		
		Stychniae gr. $\frac{1}{50}$		
		Ft. pil. Mitte xij.		

PRACTICAL CHEMISTRY.

I.

(1) A mixture of ammonium sulphate and potas. sulphate was given. To a weighed quantity add some of the N/10 solution of NaOH, and drive off the NH₃. Titrate the excess of NaOH with N/10 solution of H₂SO₄. From that calculate the amount of ammonium sulphate present in the powder.

(2) The salt for analysis proved to be sodii salicylas.

II.

(1) Given a mixture of K₂SO₄ and KHSO₄, estimate the amount of KHSO₄.

(2) The salt proved to be KI and BaCl₂.

III.

(1) By means of the N/10 solution of K₂Mn₂O₈ and N/10 solution of NaOH provided, estimate the amount of oxalic acid and sulphuric acid in the solution (No. 7).

Some candidates were given a mixture of Na₂CO₃ and BaCl₂—find amount of Na₂CO₃ present.

Others had CaCO₃ and CaCl₂—find amount of CaCO₃ present.

IV.

Volumetric.—Mixed powder of NaHCO₃ and NaCl. Estimate the amount of NaHCO₃ with N/10 H₂SO₄.

Analysis.—Salt proved to be NaCl and H₅BO₃.

V.

(1) Estimate the amount of available chlorine in liq. sode chlor., B.P.

(2) Aluminium sulphate proved to be the salt for analysis. The candidate was required to find the base, and convert it into an oxide.

VI.

(1) Estimate the amount of Na₂B₄O₇ in a mixture of it and CaCO₃ by means of N/10 H₂SO₄.

(2) The salt for analysis was salicin.

(12/24.)

EDINBURGH.

In practical chemistry I met Mr. Meldrum, who supplied me with a salt for analysis which proved to be Mg.K.HCl.H₂SO₄, with traces of Al and Na. My volumetric was a solution of tartaric acid in which I had to estimate grams of pure acid in 100 grams by means of the pure sod. carb. exsicc. supplied.

At practical pharmacy in the afternoon I met Mr. Sutherland, who gave me the following:—

- | | |
|--|--|
| (a) Prepare emp. cantharis, and spread a blister 3 inches by 4 inches. | (c) Prepare 2 oz. solution of ammon. acetate. |
| (b) Ferri et ammon. cit. 5iss. | (d) Camphor. ... gr. xij. |
| Liq. arsenicalis ... 5ss. | Menthol. ... gr. viij. |
| Glycerini ... 5iv. | Ung. hydrarg. ... 5j. |
| Aq. destill. ad ... 5vj. | Adip. benz. ... 5iv. |
| Sig.: One tablespoonful to be taken three times a day after meals. | Apply freely, then cover with boric lint. |
| | (e) Pil. plumbi c. opio gr. iiij. Mitte viij. Varnish. |

I proposed to make 70 gr. of plaster, but was told to make about 100 gr. Mr. Sutherland said he would alter the size of the plaster if necessary, which he eventually did to one for the right ear.

At the oral on Thursday, April 9, my first subject was chemistry with Mr. Tocher, and I was first questioned about the balance and the principle involved, then the barometer; to what extent the earth is surrounded with air, and why it remains on the surface; law of conservation of energy; effect of heat on organic compounds; estimation of C₆H₅O₂N, N in aniline; method of estimating sugar; how Ag occurs in nature, how obtained, to what metals is it allied?

Mr. Gilmour took me in pharmacy, beginning with extracts, how they are made, and explanations of the processes. Ext. bellad. liq. was taken as a speciality, with all about the making and assay of it; then strengths of poisonous extracts—pulv. opii co., pulv. kino co., pulv. ipec. co., tr. canthar., tr. aconit., aq. chlorof., tr. quin. amm., pulv. scam. co., and about a dozen others.

At botany, with Dr. Bower, I had a slide to draw and describe (T.S. monoc. stem), then followed questions on xylem, phloem, and sieve-tubes; I had to describe a cruciferous flower. I was next shown half of a T.S. of a tree-trunk, to tell all about it; then a tomato, to tell what kind of fruit, and placentation; then fresh specimens of *Cochl. armor.*, rad. aconit., *Pinus sylvestris*, *Daphne Laureola*, *digitalis* (leaves), and *aspidium*; dried pressed specimens of *Rosa canina*, *Ruta graveolens*, *Colch. autumn.*, *Brassic. alb.*, and *Quercus Robur*.

Mr. Fraser took me in materia medica, showing guaiacum resin, benzin, kino, podophyllum, aconite-root, cascara (in very large quills), virgin scammony, taraxacum-root, strophantus-seeds, gambier, nux vomica, ricinus-seeds, cannabis, conium-leaves, aloes (Barb.), and a few others, asking natural orders and habitats here and there, as well as content of active principle.

Mr. Meldrum then took me in prescription-reading and doses. I passed. (12/33.)

New Books.

Beck, C., and Andrews, H. *Photographic Lenses: Simple Treatise.* 7 $\frac{1}{2}$ × 4 $\frac{1}{2}$. Pp. 288. 1s. net. (Lund.)

Campbell, K. *Refraction of the Eye and Anomalies of the Ocular Muscles.* 8 $\frac{1}{2}$ × 5 $\frac{1}{2}$. Pp. 220. 5s. net. (Baillière.)

Carwardine, T. *Operative and Practical Surgery.* For students and practitioners. Rev. ed. 8 $\frac{1}{2}$ × 5 $\frac{1}{2}$. Pp. 686. 10s. 6d. net. (Simpkin.)

Ernst, M. *Wireless Telegraphy and Telephony.* Illus. 8vo bds. 1s. Office of Electricity.

Hall, A. D. *The Soil: an Introduction to the Scientific Study of the Growth of Crops.* 8 $\frac{1}{2}$ × 5 $\frac{1}{2}$. Pp. 302. 3s. 6d. (Murray.)

Osler, W. *Principles and Practice of Medicine.* Designed for practitioners and students of medicine. 5th ed. 9 $\frac{1}{2}$ × 6 $\frac{1}{2}$ Pp. 1202. 18s. net. (Appleton.)

Salomons, Sir D. L. *Experiments with Vacuum Tubes* 7 $\frac{1}{2}$ × 4 $\frac{1}{2}$. Pp. 58. 2s. (Whittaker.)

Tilden, W. A. *The Specific Heats of Metals and the Relation of Specific Heat to Atomic Weight.* Part 2. 4to. Pp. 6. 1s. (Dulau.)

The Assistants' Page of News.

THIS WEEK'S "C. & D" IN BRIEF.

THREE COLUMNS of useful formulæ will be found on page 626.

A TOILET EXHIBITION is being held in the Brighton Aquarium (p. 608).

THREE Scotch Universities object to the B.Sc. Pharm. scheme (p. 628).

THE NAMES of the Minor candidates who passed in Edinburgh this month are given on p. 620.

THE question of Irish drugs for the Irish poor has been heard in the House of Commons (p. 619).

TWO UNQUALIFIED DENTISTS have been fined under the Dentists Act for the illegal use of titles (p. 618).

WE conclude our selection from DIARY postcards received from home subscribers, and award four prizes (p. 627).

PATENT-MEDICINE LEGISLATION, covering the sale of hypnotics especially, has been started in Pennsylvania (p. 613).

EIGHTEEN CANDIDATES passed the Major examination in London this month, and four failed in Edinburgh (p. 620).

WARWICKSHIRE MAGISTRATES believe they have no discretion as regards "off" wine-licences, and have so decided (p. 609).

MOTORING may be utilised by chemists as a side-line in the manner suggested by Mr. Fred Reynolds and our staff poet (p. 620).

THE FIRST CHEMICAL LABORATORY for students was not that of the Pharmaceutical Society. An advertisement of 1839 shows this (p. 624).

KOCH'S THEORY about bovine tuberculosis not being communicable to man has been disproved by two Aberdeen investigators (p. 611).

DR. T. A. HENRY, of the Imperial Institute laboratories, contradicts certain statements by Mr. D. B. Dott regarding Indian podophyllin (p. 630).

SIX PHARMACY and chemistry papers, given at the London Minor examination, and an account of the examination in Edinburgh, are printed on p. 640.

MR. WALTER FARNWORTH, the pharmaceutical Mayor of Blackburn, was thrown from his carriage on Thursday morning, and died in the afternoon (p. 638).

WE reprint those portions of the *Daily Mail* articles on substitution which apply to chemists and druggists (p. 639), and show how inaccurate the writer is (p. 623).

"XRAYSR" waxes sarcastic in regard to synthetic scents, has something to say about agreements between chemists and grocers, about radium, and the possessive-case difficulty (p. 621).

AN APPEAL against the recent decision under the Dentists Act, whereby the promoter and manager of a dental company was fined, has been arranged, and funds are wanted to prosecute it (p. 633).

THE agents for Winter's citronella oil write in regard to Messrs. Bennett and Parry's recent paper on the subject, and suggest that Russian kerosene, and not resin-spirit, was the adulterant (p. 630).

SUBJECTS IN "SCIENTIFIC PROGRESS" this week are citrarin, a polymerised chloral, adulterated turpentine, nitrogen compounds of saccharin, monarda oils, cod-liver oil, coca constituents, and the detection of raw milk (p. 620).

THE QUESTIONS set at the Irish Pharmaceutical Licence examination this month are printed on p. 619, where also are given the names of those who passed the examination and of those who passed the Preliminary examination.

A CORRESPONDENT writes in a trenchant manner in regard to cutting and substitution. He says the P.A.T.A. will never settle the matter, and suggests an independent conference to condemn substitution and secure 20 per cent. profit (p. 623).

MR. GEO. S. WOOLLEY complains of the apathy of Manchester chemists as regards pharmaceutical affairs, the local Association not being attended as it should be. Mr. Woolley's colleagues have presented him with an illuminated address (p. 614).

THE MARKETS have only been partially re-opened since the holidays, and no changes of importance have occurred. Cartagena ipecac and shellac are practically the only articles that have shown any life (p. 635).

MAINLY PERSONAL.

MR. W. J. WILLIAMS, chemist and druggist, has commenced business on his own account at Llanbradach, S. Wales.

MR. F. C. COATES, chemist and druggist, has been appointed dispenser to the Guardians of the parish of Nottingham.

THE BOOTS AGREEMENT with assistants, which was published in the C. & D. recently, is considered fair by correspondents.

THE PRIZE WINNERS in the C. & D. Diary criticism competition are Messrs. Frank L. Simmonds, J. E. Bush, W. Patrick, and J. W. Dent.

MESSRS. WALKER & HARRIS, of East Street, City Road, E.C., have acquired Mr. W. Evans's business at 118 Kingsland Road, N.E.

APRIL 30 is the latest date for candidates to enter for the Kinrington prize. Particulars from Mr. W. L. Currie, 223 Byres Road, Dowanhill, Glasgow.

THE BUSINESS of Messrs. T. G. Hughes (Limited), at Bradley Green, Biddulph, near Congleton, Cheshire, has been acquired by Mr. A. Butterworth, chemist and druggist.

MR. COWIE, who has been managing the Paisley branch of Messrs. C. T. Cockburn (Limited), has taken over Mr. Gardiner's branch pharmacy in New City Road, Glasgow.

THE SHOP IN LANGSIDE formerly belonging to Mr. J. B. McVitae, chemist and druggist, has been acquired by Mr. G. S. Kitchin, of Pollokshields, who will carry it on as a branch.

MESSRS. J. F. Y. STALKER, H. Inglis, W. Turnbull, W. H. Hughes, W. B. Marshall, J. W. Ward, and J. S. Strange, from the Old Country, have been registered as chemists at the Cape.

THE CHEMISTS who have been elected on District Councils include Messrs. G. H. Howells (Maesteg), P. J. Ashfield (Rhyd), F. Tidswell (Denholme), B. Broome (Woodford), and T. M. Baxter (Bourne).

THE BUSINESS of Messrs. George & Welch, at 68 Broad Street, Worcester, has been purchased by Mr. A. E. Coverdale, pharmaceutical chemist, of Pickering. It will be carried on under the old style.

THE PHARMACY ASSISTANTS' ASSOCIATION of Paris is agitating to secure the insertion of a clause in the new Pharmacy Bill giving assistants a legal status. There are about 1,000 assistants in Paris, and 5,000 to 6,000 in provincial France.

THE RESULTS of the April Minor and Major examinations at Edinburgh show that of 152 Minor candidates examined only 54 passed. Four Major candidates were examined and all failed. Eighteen candidates for the Major passed at the London examination.

ASSISTANTS with Continental experience will be interested to learn that Mr. J. Foli has succeeded to the business of the late Mr. A. Nicholls (Nicholls & Passeron) at Nice, and that Mr. R. Jenzer has acquired Mr. E. Pulver's pharmacy at Interlaken, Switzerland. Mr. H. Hofstetter, who was for some time in Messrs. W. Schacht & Co.'s pharmacy at Finsbury Pavement, E.C., has opened an English and American pharmacy at 6 Broglieplatz, Strassburg.

THE EDUCATIONAL INSTITUTIONS advertising in this issue are as follows:—

South London School of Pharmacy (Muter's), 325 Kennington Road, S.E.

London College of Chemistry, Pharmacy, and Botany, 323 Clapham Road, S.W.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Liverpool School of Pharmacy, 6 Sandon Terrace, Upper Duke Street, Liverpool.

Central School of Pharmacy, 2 Charterhouse Street, E.C.

Royal Dispensary and School of Pharmacy of Edinburgh, 21 West Richmond Street, Edinburgh.

Westminster College of Chemistry and Pharmacy (Limited), Trinity Square, Borough, S.E.

Charing Cross Hospital Medical School, Chandos Street, W.C.

Royal Dental Hospital of London Medical School, Leicester Square, W.

Exchange Column—Bargains.

TERMS.

Limited to the Advertisements of Surplus Stock, Shop Fitings, Apparatus, Photographic Goods, Books and Periodicals, Formulae, Addresses Wanted and Articles Wanted.

1½ d. per word with name and address. 1d. per word if we register the address and attach a number.

No Advertisement inserted for less than 6d.

Remittances payable to **EDWARD HALSE**, and crossed **MARTIN'S BANK, LIMITED**.

FOR DISPOSAL.

APPARATUS.

Dental-engine (secondhand); complete and in working order; price, 30s. GILBERT & HALL, Bournemouth.

Gas-engine (Crossley); about 3 h.p.; equal to new; complete, tank, belt, &c.; cost £80; can be seen working. Write, "H." 44 Mount Arrarat Road, Richmond.

Ryland's aerated-water plant complete, gas-engine, and every requisite for manufacturing; must be sold; owner leaving premises. T. F. HARRIES, 50 Great Barr Street, Birmingham.

BOOKS AND PERIODICALS.

"The Dispensatory," 16th edition (Wood and Baché); 7 divisions; uncut; cost 35s., cash 15s. JULSON, Broad Street, Worcester.

Wells's "Chemical Physics," Bentley's, Wbitla's, Muter's, "B.P." (1885), Wilts's "Volumetric Analysis," Stirling's "Notes on Dispensing," Cooke's "Botany," Smith's "Metric System"; 12s. all, or offer, "C.M." 49 Church Road, Upper Norwood, S.E.

DRUGS AND CHEMICALS.

Ten Winchesters finest Norwegian cod-liver oil; samples free; whole or part, 18s. gal. REID, 84 Newington Road, Edinburgh.

FORMULÆ.

Photographic Chemists.—It will pay you to note this offer: perfect combined P.O.P. bath, neutral; perfect single-solution concentrated developer; perfect single-solution intensifier; 3 formulae, 1s. 6d.; satisfaction guaranteed. "PHOTO-ARTIST," Kelvin House, East Molesey, Surrey.

SHARES.

Shares for sale.—See Miscellaneous column (p. 60).

SHOP FITTINGS.

A handsome 20 in. globe-lamp for sale; ruby glass, richly gilded; perfectly new; with bracket complete, £2. HUMPHREY, 27 Berwick Street, London, W.

Maw's large specie-jar, with royal arms and gilt-glass top; also mahogany stand for above; good condition, at half Maw's list; also 2 Poth's duplex carboys, at two-thirds Poth's list; all free on rail. CLARKE, Chemist, Kingston-on-Thames.

Owing to alterations.—3 swan-neck carboys and stands, 38 in. high, £4, very fine; 2 pairs specie-jars, 27s. 6d. and £3; 2 window-enclosures, 13 ft. and 8 ft.; show-jars; shop-bottles, all sizes, 6s. doz.; few glass cases, &c. SMITH & SON, Chemists, Gosport.

MISCELLANEOUS.

Personal weighing-machine; good condition; price, 12s.; free package. FIELDS, Beverley.

36 boxes Sparklet bulbs, size B; 30s., carriage paid. BOOTH, Chemist, Somercotes, Derbyshire.

MISCELLANEOUS—continued.

Tooth-forceps (14) and gum-lancet; useful lot; 30s. "C." 119 Westminster Bridge Road, S.E.

About 6 gross each, eau-de-Cologne bottles, 4-oz. originals, 5s. 6d. gross; 4-oz. white long-neck lavenders, 7s. gross; clean, as new. "O. O. D." 10 Lyon Street, Walworth.

Bruce Green's sight-savers, quite new, perfect condition, case 12 short sights, 10s. ditto long sights, 10s.; window show-case, 12s. 6d. RICHARDSON, Chemist, Holborn Place, Plymouth.

Gray's "Anatomy," 9th edition; "Compend. of Anatomy" (Roberts), 1882; "Surgical Pathology" (Bowby), 3rd edition; 2 tooth-forceps; small scales; £1. "CHEMIST," 60 Watney Street, E.

About 6 doz. each, suspensory bandages; surplus stock; cotton, well assorted, 4s. doz.; silk, well assorted, 8s. 6d. doz.; clean and perfect; cash returned if not approved. "R." 63 Heron Road, Herne Hill, London.

4 gals. cod-liver oil, 12s. gal., sample free; several dozens 8 and 16 oz., 50% emulsion, at 6s. 3d. and 11s. 6d. doz., sample, 8 oz., 7d.; 3 doz. Dodd's, 4 doz. Doan's, and 2 doz. Williams's, 23s. 8d.; 1½ doz. bile beans, 11s. 9d. and 25s. 6d. doz.; all carriage paid. JAMES COUGH, Liskeard.

Best offers.—6 4-gal. pear-shape carboys; Maw's 60 grain pessary-mould, unboxed; Enterprise tincture-press (1 each), quart, ½ gal.; ditto pill machine (Maw's reversible); ½ gal. Y. G. Co.'s percolator, glass tap graduated; specific-gravity bottle; Easy sign-marker; about 3 gross 3d. Diamond dyes. MIDDLETON, 252 George Road, Edinburgh.

WANTED.

60 grain pessary-mould. Price and particulars to KEMP, Chertsey-cum-Haliday.

Old electric lamps and scrap platinum. P. ROWSELL, 9 Derwent Grove, E. Dulwich.

Old artificial teeth; cash by return. MESSRS. DENT, 120 Greyhound Lane, Streatham.

Good dental-forceps; cash, or exchange self-inking printing-press, with type. Particulars, BOWES, Chemist, Exeter.

Wall-fitting, 4 ft. long, 8 ft. 5 in. high; also glass shelves for window, with bars. "CHEMIST," Broadway, Ashford, Middlesex.

"Proc. Brit. Ph. Conf." (Year-book Pharmacy), 1864-69, or part 1889-1902, or part; Jl. Soc. Ch. Ind.; Chem. Soc. Analyst; Chem. Gaz. and News. 151/13, Office of this Paper.

ADDRESSES WANTED.

Address of Mr. J. A. Cunningham, M.R.C.V.S., late of Dufftown, Banffshire. 13/32, Office of this Paper.

Mr. BARRATT, Chemist, late of Wandsworth Bridge Road—A. S., would very much like to hear from you; write soon. 45 Apple Road,